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ENVIRONMENTAL ASSESSMENT BOARD



ONTARIO HYDRO DEMAND/SUPPLY PLAN HEARINGS

VOLUME: 175

DATE: Wednesday, January 6, 1993

BEFORE:

HON. MR. JUSTICE E. SAUNDERS Chairman

DR. G. CONNELL Member

MS. G. PATTERSON Member

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2300 Yonge St., Suite 709, Toronto, Canada M4P 1E4

ENVIRONMENTAL ASSESSMENT BOARD
ONTARIO HYDRO DEMAND/SUPPLY PLAN HEARING

IN THE MATTER OF the Environmental Assessment Act,
R.S.O. 1980, c. 140, as amended, and Regulations
thereunder;

AND IN THE MATTER OF an undertaking by Ontario Hydro
consisting of a program in respect of activities
associated with meeting future electricity
requirements in Ontario.

Held on the 5th Floor, 2200
Yonge Street, Toronto, Ontario,
Wednesday, the 6th day of January,
1993, commencing at 9:00 a.m.


VOLUME 175

B E F O R E :

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942	NSTC: Document entitled "Anishinabe Cultural Impacts", John Ronald Wakegijig, December 30, 1992.	
943	NSTC: Document entitled "Social Impact Assessment: Developing an Appropriate Framework for Aboriginal Peoples", Dr. Peter Homenuck, IER Planning, Research and Management Services, December 30, 1992.	
944	NSTC: Document entitled "The Natural Environment Component Fossil and Nuclear Generation: What is the Appropriate Level of Analysis for a Planning Document", David R. Cressman, Ecologistics Limited, January 4, 1993.	
945	NSTC/NAN Treaty/MRJBC: Document entitled "A Review of the Environmental Assessment Process used by Ontario Hydro in the Demand/Supply Plan", Steven Rowe, Walker, Nott, Dragicevic Associates Limited, December 30, 1992.	
946	NAN Treaty #3: Witness statement of David Echum, December 22, 1992.	
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951	MRJBC: Witness statement of Ron Spencer, January 4, 1993:	
952	IPPSO: Document entitled "The Potential For Non-Utility Generation in the Province of Ontario", Steven G. Diener and Associates Ltd., January 4, 1993.	
953	IPPSO: Document entitled "Analysis of Alternative Supply Futures for the Ontario Hydro System", William B. Marcus, January 4, 1993.	
954	IPPSO: Document entitled "Recommendations For Hydro's NUG Program", Dr. Janice G. Hamrin, January 5, 1993.	
955	IPPSO: Document entitled "Risks, Taxation and the Social Cost of Electricity", Jack M. Mintz, January 5, 1993.	
956	IPPSO: Document entitled "Background Notes for a Presentation to Energy Options", Jeff Passmore, November 19, 1987.	
957	IPPSO: Document entitled "How Quickly We Forget - Representative Dates", Jeff Passmore, January 4, 1993.	
958	CEG: "Correcting the Imbalance of Power, Volume 1: Integrated Resource Planning for Ontario Hydro", John Wallach, John Plunkett.	
959	CEG: "Correcting the Imbalance of Power, Volume 2: Integrating Demand Management in Least Cost Planning", John Plunkett.	

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962	CEG: "Correcting the Imbalance of Power, Volume 3: Part 3: The Ontario Hydro Reference Case", Ed Bodmer.	
963	CEG: "Correcting the Imbalance of Power, Volume 3: Part 4: The RII Reference Case", Ed Bodmer.	
964	CEG: "Building the Ontario Hydro's Conservation Power Plant, Volume 1: Demand Management Programs: Targets and Strategies", John Plunkett.	
965	CEG: "Building Ontario Hydro's Conservation Power Plant, Volume 1: Demand Management Programs: Targets and Strategies -- Appendices", John Plunkett.	
966	CEG: "Building Ontario Hydro's Conservation Power Plant, Volume 2: Demand Management Program Design for Least Cost Planning", John Plunkett.	
967	CEG: "Building Ontario Hydro's Conservation Power Plant, Volume 3: RII Program Technical Analysis", John Plunkett.	
968	CEG: "Building Ontario Hydro's Conservation Power Plant, Volume 4: Assessment of Ontario Hydro's 1993 Demand-Management Plan", John Plunkett.	
969	CEG: "Electricity Demand and Savings Potential in Ontario's Commercial Sector: Main report", Ralph Torrie, Robin Skinner.	

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977	CEG: "Risk Implications of Potential New Nuclear Plants in Ontario, Volume 2 - Annex I: A Review of the Darlington Level 1 PRA Analysis", Gordon Thompson, Steven Sholly.	
978	CEG: "Risk Implications of Potential New Nuclear Plants in Ontario, Volume 2 - Annex II: Level II PRA Issues for DNGS 'A'", Gordon Thompson.	
979	CEG: "Risk Implications of Potential New Nuclear Plants in Ontario, Volume 2 - Annex III: Offsite Consequences of Potential Accidents at DNGS 'A'", Gordon Thompson.	

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982	CEG: "Risk Implications of Potential New Nuclear Plants in Ontario, Volume 3 - Annex I: Safety Aspects of CANDU Plant Design: Previous Practice and Future Options", Gordon Thompson, Steven Sholly.	
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984	CEG: "Performance Reliability of Ontario Hydro CANDU Plants: What Should be Expected in Future? (Revised)", Charles Komanoff.	
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992	CAC: "Residential Demand-Side Management Market Preparation, Market Transformation and Whole-House/Multiple Measure Program Strategies to Enhance DSM Penetration Rates", Paul Berkowitz, December 22, 1992.	
993	CAC: "Electricity pricing in Ontario: Macro Effects and Distributional Impacts from Current Policies and Possible Alternatives", Leo de Bever, January 3, 1993.	
994	ONGA: "Natural Gas Options for Electricity Demand/Supply Planning in Ontario", December 1992.	
995	ONGA: "The Environmental Opportunities For Natural Gas", Rowan Williams Davies and Irwin Inc., August 19, 1992.	
996	ONGA: "Report on Natural Gas Procurement for Power Generation", Richard J. Redmore, July 1, 1992.	
997	ONGA: "Natural Gas Supply Issues", Sproule Associates Limited for ONGA, December 1992.	
998	CNA: Witness statement of Tim Meadley, December 23, 1992.	
999	Energy Probe: "Environmental Unacceptability and Environmental Regulation of Nuclear Power", Norman Rubin, Borealis Energy Research Association, January 4, 1993.	

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1001	Northwatch: Panel 5 - Miscellaneous Issues - Lay Witness Statements, January 5, 1993.	
1002	Northwatch: Panel 5 - Miscellaneous Issues - Document entitled "Community Involvement in an Environment of Concurrent and Cross-Planning", Charles Hostovsky, January 5, 1993.	
1003	Northwatch: Exhibit - Writings Related to Hydroelectric Development", Fikret Berkes, Ph.D., December 15, 1992.	
1004	Northwatch: Document entitled "Evaluation of Fish Habitat Mitigation at Six Hydrotechnical Projects", KGS Group, EAG, NHCL, December 16, 1992.	
1005	Government Agencies: Document entitled "Medium-Term Prospects for Renewable Energy in Ontario's Electrical Supply", Hickling Corporation for Ontario Ministry of Energy, June 1992.	
1006	Government Agencies: Ministry of the Environment Witness Statements (With attachments) - Testimony of Kenneth B. Ogilvie, January 1993.	
1007	Government Agencies: Ministry of Natural Resources Witness Statement - testimony of Rick LaPrairie and Ian Crawford, January 4, 1993.	
1008	Government Agencies: Ontario Native Affairs Secretariat Witness Statement (With Attachments) - Testimony of Grant Wedge, January 4, 1993.	

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1010	"AECL: Document entitled "CANDU Safety Design", Victor Snell, January 4, 1993.	
1011	AECL: Document entitled "The management of Low Level Radioactive Waste in Canada", D. Charlesworth, January 4, 1993.	
1012	AECL: Document entitled "An Evaluation of Ontario Hydro's Demand Plan", Dr. Lester B. Lave, January 4, 1993.	
1013	AECL: Document entitled "A Planning Assessment of Demand Management Programs at Ontario Hydro", Oliver S. Yu, January 4, 1993.	

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1014	AECL: Document entitled "The Canadian Nuclear Fuel Waste Management Concept", B. Gray and K. Nuttall, January 4, 1993.	
1015	AECL: Document entitled "Ontario Hydro Demand/Supply Plan Environmental Assessment Hearing - AECL Submission on Decommissioning", JG. Pratapagiri, J. Liederman, F. Pare, January 4, 1993.	
1016	AECL: Document entitled "A Planning Assessment of the Non-Utility Generation Program in Ontario Hydro's Resource Plan", Oliver S. Yu and Anthony Pavone, January 4, 1993.	
1017	MDAB: Letter from Blair Taylor to Bruce Campbell re Exhibit 796.	

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940.2	Ontario Hydro undertakes to determine status of any decision to put on hold NUG projects of less than five megawatts.	30688

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1 ---Upon commencing at 9:05 a.m.

2 THE REGISTRAR: Please come to order.

3 This hearing is again in session. Please be seated.

4 THE CHAIRMAN: Since yesterday people
5 have been busy filing exhibits and we now have given
6 numbers to exhibits 941 to 1017, inclusive. The list
7 of those exhibits will be published by the reporters
8 tomorrow, at least in today's transcript. Is that
9 correct, Ms. Morrison - in today's transcript?

10 There will be a meeting this Friday of
11 all intervenors, this Friday at ten o'clock, of all
12 intervenors who are proposing to present evidence in
13 Panel 2. One recognizes immediately that there may
14 never be evidence on Panel 2, but one has to do a
15 certain amount of contingency planning in this hearing
16 at least, so there will be such a meeting. What the
17 agenda will be and what will be discussed will be a
18 matter for those who are present and anyone who wants
19 to discuss it in advance can do so with Ms. Morrison.

20 I think those are the announcements that
21 I was asked to make. Mr. Castrilli you can continue
22 with your questions.

23 MR. CASTRILLI: Thank you, Mr. Chairman.

1 AMIR SHALABY,
2 PAUL JONATHAN BURKE,
3 BRIAN PAUL WILLIAM DALZIEL,
4 JOHN KENNETH SNELSON; Resumed.

5 CROSS-EXAMINATION BY MR. CASTRILLI (Cont'd):

6 Q. Good morning, Panel. I wanted to
7 come back to a matter that I touched on briefly
8 yesterday afternoon, and that is the issue of what
9 exactly are the approvals now being sought in relation
10 to transmission. Perhaps the easiest way to do this is
11 to refer to page 19 of what I believe is Exhibit 937.

12 On this list are the DSP components that
13 remain, such as they are. What is not immediately
14 apparent from the list is the transmission that is
15 being sought for approval. I take it the transmission
16 that is still being sought is in relation to the
17 hydraulic additions, whatever they may be. Is that
18 accurate?

19 MR. SNELSON: A. I believe we have
20 stated our hydraulic approvals requested and that a
21 exhibit number was given to the a statement of exactly
22 the form of the hydraulic approval that we are
23 requesting. I could find that exhibit number given
24 time.

25 We haven't changed the request for
 hydraulic approvals. I do believe that the requirement

1 and rationale for incorporating transmission for the
2 range of hydraulic approvals is a part of the approvals
3 requested. Only the incorporation of that need and
4 rationale for the incorporation of the range of
5 hydraulic capacity and energy for which approval is
6 being requested.

7 Q. Now, does the resurrection of the
8 Little Jackfish affect the need for east/west
9 transmission?

10 A. It has some impact on east/west flows
11 and could impact on the need for east/west transmission
12 either to increase or to reduce it, depending upon
13 which direction the flows are most critical at that
14 time.

15 Q. Is that one of the matters that is to
16 be considered over the next several months and of which
17 we might be apprised?

18 A. Well, I didn't object to your
19 resurrection of Little Jackfish in your question this
20 time but you will recall my objection to it yesterday.

21 Q. Yes, I do?

22 A. Little Jackfish by itself I don't
23 think is a large enough influence to drive the need for
24 major transmission between the east and the west
25 systems. It would be a contributing factor in some

1 circumstances but by itself would not be large enough.

2 Q. That would also be true for some of
3 the other hydraulic developments identified on page 19
4 of Exhibit 937 such as Patten Post and Ragged Chute?
5 Could they also contribute to the need for east/west
6 transmission?

7 A. I believe Patten Post and Ragged
8 Chute are both in the northeast region and would have
9 very little influence on flows between the northwest
10 region and the northeast region.

11 Q. Could I ask you gentlemen to turn
12 to - probably you in particular, Mr. Burke - to
13 attachment C of Exhibit 796? There are two excerpts I
14 wanted to refer you to. The first one is on page 23 of
15 that attachment. We are looking at the last half of
16 the second paragraph on page 23 the sentence that
17 begins "the difference".

18 Do you see that, Mr. Burke? On the
19 right-hand side of the second column, sorry, second
20 paragraph on page 23 of attachment?

21 MR. BURKE: A. Yes, yes.

22 Q. C?

23 A. Yes.

24 Q. It says:

25 The difference in results may reflect

1 the greater ability of the end-use system
2 to reflect structural shifts within the
3 industrial sector. Nonetheless, it was
4 considered premature to accept as weak a
5 recovery in industrial loads as the one
6 suggested by the end-use analysis. The
7 extent of the economic difficulties
8 facing Ontario's electricity-intensive
9 industries is one of the major risks to
10 this forecast.

11 Just before I ask you the question, I
12 just want to refer you to page 81 of the same
13 attachment. We are now looking at the bottom of the
14 page. It says:

15 It is difficult to predict at this
16 point the extent to which long-term
17 industrial restructuring will take place
18 versus a come back to previous output
19 levels. The industry specific forecasts
20 which follow do show the impacts of
21 restructuring. However, the "other"
22 nonspecific industry category has been
23 adjusted to ensure consistency with
24 projections from the short-term load
25 forecast which maintains a somewhat more

1 optimistic picture of the industrial
2 sector.

3 Over to page 82.

4 In essence the "other" category is
5 used to make up the difference between
6 the end-use forecast and the recommended
7 short-term load forecast. Its strong
8 growth may be interpreted as accounting
9 for currently unspecified growth
10 potential. The adjustment builds up
11 4,959 gigawatts by 1997 and is maintained
12 at that level for all years thereafter...
13 I think is --

14 THE CHAIRMAN: Gigawatthours.

15 MR. CASTRILLI: Q. Sorry, gigawatthours.

16 My apology.

17 Mr. Burke just reflecting on those two
18 quotes for a moment would it be fair to say that those
19 two quotes reveal a level of uncertainty in the
20 industrial load forecast?

21 MR. BURKE: A. Yes.

22 Q. Would you be prepared to say they
23 reveal an extraordinary level of uncertainty in the
24 industrial load forecast?

25 A. No.

1 Q. No? This is typical in your
2 experience?

3 A. I think the issue of restructuring
4 and the extent to which it could impact on Ontario load
5 has been controversial for quite a number of years and
6 the differences reflected in essentially the two
7 approaches the econometric and the end-use approaches
8 in the short term to the industrial sector are not all
9 that large relative to the total size of the sector.

10 I think though that we have highlighted
11 this difference, particularly this year, because we are
12 at a rather awkward point in the economic cycle from
13 which to try to predict the outcome and in making the
14 judgment we have made, what is termed the more
15 optimistic approach in on page 82, or page 81, that it
16 is too early to call. We do not have sufficient
17 evidence.

18 What the form of the recovery in Ontario
19 will be - we are quite confident there will be an
20 economic recovery in Ontario - the form of it and the
21 extent to which it includes these electricity-intensive
22 industries is controversial and I have no problem
23 saying that.

24 [9:15 a.m.]

25 But it's too early to suggest that a more

1 pessimistic outcome will occur.

2 The sorts of events that can lend quite
3 positively to the prospects of those industries are
4 going on right now. The much lower Canadian dollar
5 will help specifically these industries, and we will
6 have to see how they pull out in the next year before
7 we would tend toward the forecast that the end-use
8 model is suggesting for that sector.

9 Q. Does the "other" category, or its use
10 by Ontario Hydro, not leave one with the impression
11 that it is being used as a category of currently
12 unspecified growth potential whose forecasted load is
13 adjusted to whatever level is necessary to get to the
14 end result you want?

15 A. The methodology that we have used for
16 the basic load forecast is the same as described on
17 Panel 1. We went through the trade-offs we make
18 between econometric and end-use methods and the extent
19 to which we applied judgment in using both sets of
20 inputs. We discussed the relationship between the
21 short-term and the long-term forecasting methodologies
22 there. This is no different than before. The
23 adjustment took place last time in the commercial
24 sector because that was our area of most uncertainty at
25 the time. Now it turns out there is very little

1 discrepancy between the commercial sectors, or the sum
2 of the residential plus commercial sector and it is
3 highlighted in the industrial sector. There is very
4 little difference and this approach I think has been
5 discussed at length in Panel 1.

6 Q. Let's move on.

7 I would like to ask you to turn to page
8 11 of Exhibit 796. I'm sorry, I misspoke. I should
9 have been referring to attachment A, section 4E.

10 THE CHAIRMAN: I'm sorry, I have lost
11 you. Where are you now?

12 MR. CASTRILLI: Attachment A, small Roman
13 numeral 2.

14 THE CHAIRMAN: Attachment A to C or is it
15 attachment A to 796?

16 MR. CASTRILLI: I'm sorry, attachment A
17 to Exhibit 796. My apologies, Mr. Chairman. And we
18 are looking at small Roman numeral 2 in attachment A as
19 part of the Executive Summary.

20 Q. Mr. Snelson, yesterday you and I
21 talked about the items that are listed in that
22 paragraph dealing with the Mattagami Complex, the four
23 that we are talking about were better utilization of
24 the river, improved reservoir and erosion management,
25 regional development and relatively low cost upward

1 flexibility.

2 You recall that discussion, do you not?

3 MR. SNELSON: A. Yes, I do.

4 Q. Would it be fair to say that those
5 are site-specific factors?

6 A. They are in this discussion with
7 respect to the Mattagami site, yes.

8 Q. Thank you. Now, could I ask you,
9 gentlemen, to turn to attachment H. We are looking at
10 schedule 1. Sorry, we are looking at the top of the
11 page in schedule 1 of attachment H, and it's really in
12 relation to both Niagara and Mattagami where you
13 indicate that early expenditures should be minimized in
14 order to retain flexibility. I believe you say that in
15 relation to both the Mattagami and the Niagara
16 hydraulic developments. Could you explain or clarify
17 the rationale for that statement or clarify that
18 statement?

19 A. The statement seems fairly clear to
20 me. Clearly, you don't want to spend money before you
21 need to, and the more money you have spent, then the
22 less flexibility you have to change.

23 Q. Mr. Snelson, at what point in
24 development would sunk costs for Niagara and Mattagami
25 begin to increase rapidly?

1 A. The most rapid increase in costs and
2 commitments to costs occurs at the time of committing
3 the construction of the project which is the start of
4 the acquisition phase which would have been discussed
5 on previous panels when talked about the life cycle of
6 generation.

7 Q. Do the data in this attachment,
8 attachment H, in particular schedules 2 through 4,
9 reflect minimization of early capital expenditures for
10 Niagara and Mattagami.

11 MR. DALZIEL: A. Schedules 2 and 3
12 represent the starting point of the capital review, and
13 the adjustments are shown in schedule 4. So in order
14 to get the reflection of the capital reductions, that
15 would match the intent of the statement you were
16 referring to earlier, you would take the values in
17 schedule 4 and within the appropriate branches back
18 those amounts out of the capital budgets in schedules 2
19 to 3.

20 Q. Yes. Sorry, you were done?

21 A. Yes.

22 Q. So the answer to my question is not
23 clear to me. Do the data concerning capital program
24 costs in those three schedules reflect minimization of
25 early capital expenditures for the Niagara and

1 Mattagami developments?

2 A. They reflect the current view of the
3 appropriate capital expenditures. I can't say that
4 they reflect minimization.

5 Q. I'm sorry, I couldn't hear you.

6 A. You used the word "minimization" in
7 your question. I can't say they reflect minimization,
8 but they reflect the current view of the capital
9 expenditures.

10 Q. How would you characterize the
11 current view if it's not minimization?

12 A. I would think it's pretty close to
13 minimum.

14 Q. Close to minimum. Can you quantify
15 that for me?

16 A. No, I can't.

17 Q. Has Hydro done an analysis that
18 permits it to determine when it's been consistent with
19 the notion of minimization quantitatively and when it
20 is not?

21 A. I think the purpose of the capital
22 review was to look closely at capital expenditures and
23 to see how they could be reduced, and that exercise has
24 been done, it was presented as part of the October
25 Board memorandum, and that's the information that we

1 are looking at here.

2 I'm just being a bit cautious about
3 saying that's the absolute minimum.

4 MR. B. CAMPBELL: Mr. Chairman, in
5 fairness, my friend might point out as well in the
6 midst of pointing out bits and pieces of all this paper
7 that's it's explicitly made clear on Mr. Eliesen's
8 covering letter that the cost estimates do not reflect
9 certain other corporate improvement initiatives that
10 are under way which I hope will further improve costs.
11 [9:26 a.m.]

12 My friend can refer to the document. He
13 has some obligation not to just pick little bits and
14 pieces.

15 THE CHAIRMAN: Well, he is referring to
16 the lead sentence in schedule 1.

17 MR. B. CAMPBELL: Yes, and it is an
18 attachment, Mr. Chairman, to a letter which explicitly
19 deals with this question. I don't think it is fair
20 when the witnesses are dealing with the amount of
21 material involved in this hearing to simply -- to not
22 put the quotes in context that are apparent.

23 THE CHAIRMAN: Well, the deal I could
24 understand was whether the analysis in schedules 2, 3
25 and 4 were consistent with the principle of minimizing

1 early capital expenditures. And I think Mr. Dalziel
2 has answered that.

3 MR. CASTRILLI: Q. I want to return to
4 attachment A, and we are now looking at the Executive
5 Summary, first page, small Roman numeral (i).

6 The first footnote at the bottom of the
7 page says:

8 Analysis has been conducted on the
9 economic benefit of a 10-year deferral.
10 However, there have been no attempts to
11 identify the optimal deferral period.
12 Is there other information now contained -- recognizing
13 that this was produced in October, has Hydro conducted
14 any studies to determine the optimal deferral period
15 for proposed resource additions?

16 MR. SNELSON: A. No.

17 Q. How do you do an analysis without and
18 how do you make decisions without considering that in
19 the context of the exercise you are engaged in?

20 A. Attachment A is the capital program
21 review which was conducted as part of the business
22 planning period -- business planning process.

23 The business plan analysis extends over
24 10 years, and for the purposes of business planning it
25 was sufficient to determine that a substantial

1 deferral, in this case a nominal deferral of 10 years,
2 is beneficial, and that was sufficient to remove those
3 expenditures from the 10-year business planning period.

4 Q. But you will note, Mr. Snelson, the
5 footnote that refers to on that page deals with Little
6 Jackfish, Patten Post and Lake Gibson, which have been
7 deferred for a period of time.

8 What I asked you was a question relating
9 to the resource additions Hydro is still proposing.
10 That would bring us to Mattagami. And my question in
11 part relates to Mattagami, and you tell me -- I take it
12 the answer is still true in relation to Mattagami as
13 well although you answered it generally before that you
14 haven't conducted a study to determine the optimal
15 deferral period with respect to Mattagami; is that
16 right?

17 A. We conducted a study of a deferral of
18 a number of options, including Mattagami, which has
19 been explained in this evidence, and the deferral of
20 Mattagami was seen as of marginal benefit economically,
21 and we felt that we were losing other advantages
22 associated with that project, other benefits of the
23 project, and so a decision was taken not to defer.

24 Q. I think we discussed the comparisons
25 of the marginality of the benefit yesterday, as I

1 recall; is that right?

2 A. Yes.

3 Q. Continuing with attachment A, can I
4 ask you to turn to page 7? We are looking at the
5 section dealing with flexibility at the top of the
6 page, and in the middle of that second paragraph you
7 talk about or you state that: It is arguable that
8 downward flexibility is more important than upward
9 flexibility in the current economic environment.

10 I would like you to explain to us, if you
11 could, Mr. Snelson, how the Mattagami complex fits into
12 a strategy concerning downward flexibility.

13 A. I don't think specifically proceeding
14 with the approvals for the Mattagami project
15 contributes to downward flexibility, but I do believe
16 that it provides upward flexibility without seriously
17 deteriorating down flexibility.

18 Q. I am going to wait to read that in
19 the transcript.

20 How did or how does Mattagami compare to
21 other resource options considered by Hydro in this
22 regard, in relation to this issue?

23 A. There are a great many other resource
24 options, and that would be a very lengthy and
25 open-ended answer. Perhaps you could be more specific

1 as to which resource options you want to compare to.

2 Q. Just compare it to Niagara.

3 A. I believe in terms of its flexibility
4 characteristics it is fairly similar to Niagara.

5 THE CHAIRMAN: I didn't quite hear that.

6 MR. SNELSON: Quite similar. The
7 flexibility characteristics both upward and downward
8 are relatively similar to the Niagara project.

9 MR. CASTRILLI: Q. We are still on
10 attachment A, gentlemen.

11 Now, at page 9 and just looking at the
12 first paragraph under the Summary heading on this
13 page - we discussed this issue generally I think
14 yesterday although not this page in particular - you
15 say in the middle of that paragraph that the expected
16 capacity of the Niagara development has been reduced.

17 I believe we had a brief discussion about
18 that yesterday in connection with schedule -- I believe
19 it was schedule or table A-1-2, if I recall correctly.

20 Can you just clarify how much the
21 capacity of the Niagara development has been reduced
22 and for what reasons?

23 MR. SNELSON: A. I think the situation
24 with respect to the capacity at Niagara is
25 substantially the same as it was when we discussed it

1 on Panel 6 and Panel 10.

2 The project approval is being sought for
3 a project of up to 900 megawatts. There are proposals
4 that could have two units or three units. A two-unit
5 development would only be about 600 megawatts, a
6 three-unit development would be 900 megawatts.

7 The option is being kept open to proceed
8 with the 900 megawatt development, but the current
9 situation is that the most likely development is about
10 600 megawatts. It is the two-unit development.

11 Q. Now, continuing with schedule A,
12 could I now ask you to turn to the bottom of page 12,
13 top of page 13.

14 Now, we talked a moment ago, and also I
15 think yesterday afternoon, about the section dealing
16 with implications of the Mattagami, and we have already
17 talked about the four items - and I don't propose to
18 back to them - that were discussed earlier respecting
19 reduced levels of erosion, et cetera. However, this
20 discussion goes on to talk about some other items that
21 I would like some clarification from you in respect of.

22 Just looking at the bottom of page 12
23 there is a statement that begins:

24 Proceeding with this project is also
25 consistent with government policy on

1 northern development and assuming receipt
2 of environmental approvals prior to
3 August, 1994 minimizes provincial
4 government exposure regarding its
5 indemnification.

6 Can you just clarify for us, Mr. Snelson,
7 if you are the appropriate person, how obtaining
8 environmental approvals leads to the result identified
9 at the bottom of page 12, top of page 13 in connection
10 with Mattagami?

11 A. I believe this has all been
12 previously discussed. It is part of the agreement
13 between Ontario Hydro, the Government of Ontario, and
14 the Spruce Falls Power and Paper Company in
15 Kapuskasing, which may have a new name because it was
16 restructured as part of this agreement, which led to
17 the acquisition of the Smokey Falls generating site
18 from the Spruce Falls Power and Paper, and there isn't
19 a clause in that agreement, I understand, that has that
20 effect.

21 Q. And the indemnification is some
22 considerable sum. I suggested a general number
23 yesterday. You weren't certain about the number, but
24 it is in the order of magnitude of hundreds of millions
25 of dollars; is that a fair statement?

1 A. It is a substantial sum of money, and
2 I believe it was in previous evidence and I don't have
3 the figure with me right now.

4 Q. And, Mr. Snelson, would you agree
5 that that is a site-specific factor as well?

6 MR. B. CAMPBELL: Well, just a minute,
7 Mr. Chairman. Haven't we been over all of this?

8 I mean, I don't want to be getting to my
9 feet all the time on this, but I seem to be the only
10 one who might care about it, and I certainly do care
11 about it.

12 If we go back through this whole case
13 piece by piece I think we are going to be here forever
14 with this panel. It looks to me like we might be in
15 any event. But in my submission --

16 THE CHAIRMAN: Well, it is --

17 MR. B. CAMPBELL: In my submission it is
18 inappropriate to go back over again and again material
19 that has been covered.

20 [9:40 a.m.]

21 We have now been over Niagara, the
22 difference in capacity on Niagara, a matter that was
23 fully discussed in Panel 6 and Panel 10.

24 We have now been through the arrangements
25 on Mattagami, a matter that was fully discuss in Panel

1 6, it was certainly discussed in Panel 10.

2 In my submission, the purpose of this
3 appearance is quite explicitly, as I understood it and
4 the basis on which I undertood to present this panel,
5 was explicitly to explain specific changes in some of
6 the information and the decisions that have been taken
7 over the fall. It was not to give an opportunity to go
8 back into redoing the case.

9 THE CHAIRMAN: Well, I don't disagree
10 with what you are saying. The problem is that when the
11 questions come up there has to be some foundation laid
12 for them in order to get to the meaning of the
13 documents that we now have to consider. I guess we
14 have the answer now that there is nothing more to the
15 statement that appears in that sentence than the
16 arrangement that was made with the Kapuskasing company.
17 Now that's all we need to know. We can then go on to
18 something else.

19 But the sentence as it stands perhaps
20 needs that kind of clarification. I quite agree with
21 you, we shouldn't going into discuss why it's 900 or
22 600 at Niagara or what the terms and conditions of the
23 indemnification are. Those are in the evidence
24 already.

25 MR. CASTRILLI: Neither of those -- well,

1 I had already asked my questions with respect to the
2 capacity and that wasn't the question I asked when Mr.
3 Campbell objected. He objected to a question that I
4 think is entirely relevant that arises out of a
5 document we only were given in connection with Exhibit
6 796 and surely --

7 THE CHAIRMAN: I think I have said that.
8 I think you are entitled to get the clarification.
9 There is nothing more to that sentence other than the
10 Kapuskasing indemnification.

11 MR. CASTRILLI: Right. But the question
12 that I asked which I don't have an answer to which was
13 objected to by Mr. Campbell was, is the question of the
14 indemnification a site-specific issue?

15 THE CHAIRMAN: The answer to that is you
16 don't need Mr. Snelson's answer to that.

17 MR. CASTRILLI: All right, I will move on
18 then.

19 Q. Could I ask you to turn to attachment
20 H and we are looking at schedule 1, and we are looking
21 at the section of schedule 1 that deals with the Little
22 Jackfish down at the bottom of the page. And referring
23 to the Little Jackfish the statement is made that there
24 maybe an opportunity for Ontario Hydro to obtain an
25 environmental approval with a 10-year shelf life with

1 minimal work by Hydro. Can you just clarify for me -
2 probably Mr. Snelson is the appropriate person - what
3 is being referred to there and how you expect to obtain
4 such an approval?

5 MR. SNELSON: A. What is being referred
6 to here, I understand, is the completion of the
7 site-specific environmental assessment for Little
8 Jackfish which was submitted some years ago, has been
9 under government review and is nearing completion, of
10 at least the government review phase, anyway.

11 MR. CASTRILLI: Mr. Chairman, I am
12 essentially done with my cross-examination. I did,
13 however, file in December and early January three sets
14 of interrogatories with Ontario Hydro. Many of the
15 questions have actually been asked in cross-
16 examination. None of the interrogatories have been
17 responded to, and for the most part I don't have a
18 problem with that since I have the oral answers now.

19 There were, however, a number of
20 questions that were asked that requested documents
21 referred to in what is now Exhibit 796, and I have
22 discussed with my friend Mr. Campbell arrangements for
23 having those questions answered.

24 Normally I think we would probably simply
25 identify the interrogatory questions but I understand

1 they do not yet have numbers, and so I am simply
2 advising the Board at this time that my understanding
3 is that Mr. Campbell will make his best efforts to have
4 those questions answered where they relate to simple
5 requests for documents.

6 MR. B. CAMPBELL: That's correct, Mr.
7 Chairman, I have not had an opportunity, however, to
8 review those interrogatories. Some of them I just, in
9 fact, have seen. The letter that was dated January 4th
10 I just saw during the course of this morning's hearing,
11 so I am not familiar with the documents that have been
12 requested.

13 To the extent that there are any
14 difficulties, Mr. Castrilli and I have agreed that if
15 there are and they need to come back before you, that
16 that will be the way to deal with it. I am not giving
17 a blanket assurance that they will all be provided.

18 THE CHAIRMAN: I understand that.

19 Thank you, Mr. Castrilli

20 MR. CASTRILLI: Thank you, sir.

21 THE CHAIRMAN: Mr. Shepherd, are you
22 next?

23 MR. SHEPHERD: Mr. Chairman, before I sit
24 down and start asking questions, Mr. Campbell and I
25 have been having a discussion about a category of

1 documents that we will be requesting he table, and that
2 is the minutes from the board meetings for September,
3 October, November and December.

4 As you can imagine, there are a number of
5 key decisions that were made during those meetings and
6 I think that you have already started to see some
7 question as to whether everybody agrees on exactly what
8 those decisions were. And so I thought the easiest
9 thing to do was if the minutes were tabled, we will see
10 what the decisions were exactly.

11 I understand from Mr. Campbell that he
12 would like to restrict exactly what he files to stuff
13 that's directly relevant to things here, and I don't
14 have any problem with that, but he will comment on what
15 he thinks is appropriate.

16 MR. D. POCH: Mr. Chairman, just before
17 Mr. Campbell speaks, so he can respond, I don't want to
18 sandwich him, I just should indicate to the Board, and
19 the Board would aware we had subpoena request in, in
20 which we asked Mr. Campbell to make available to us the
21 Secretary of the Board and general counsel,
22 specifically because of course we are interested in
23 understanding what was it that the board addressed,
24 Ontario Hydro's board addressed, what decisions were
25 actually taken, and so on. The Board will appreciate

1 how it is relevant to the position we are taking on the
2 motion.

3 So we haven't pressed for that subpoena
4 request at this time because in light of the events we
5 now have a Hydro panel. It's apparent that they are
6 not in position to answer all of the questions we might
7 have for the witnesses we are requesting subpoenas for.
8 In the hope of avoiding that, if Mr. Shepherd's request
9 is indeed accepted by Mr. Campbell I think that would
10 certainly minimize the need.

11 THE CHAIRMAN: I am not quite sure I
12 follow. I had understood that you request for the
13 subpoena was because of the memoranda that had been
14 filed in September and later and in October, as to
15 whether those were factually correct, and for the
16 purpose of use for the motion. And that having been
17 admitted, that the need for the request for the
18 subpoena was no longer an issue.

19 Is my understanding correct about that?

20 MR. D. POCH: Mr. Chairman, if those
21 documents were the evidence, we were content. That was
22 where we were at at the time we withdrew our request
23 for the subpoenas.

24 All I am suggesting, and I can't take a
25 position yet until I have heard the evidence of this

1 panel, I am just concerned, as I expressed the concern
2 earlier on the report that this panel may in effect
3 muddy the record, if you will, suggesting different
4 interpretations of the memo or what it is the board may
5 or may not have dealt with. All I am suggesting is to
6 the extent that there is ambiguity, we would like that
7 to be clear.

8 THE CHAIRMAN: How is this different from
9 what went on Panels 1 to 10 where this issue came up
10 from time to time and I thought that we had given
11 rulings that the evidence, the position of Ontario
12 Hydro is the evidence given at this hearing, and that
13 the internal procedures, if you will, including
14 directors' deliberations is not part of what Hydro is
15 required to present. Now that was, in general, the
16 position that was taken in Panel's 1 and 10.

17 MR. D. POCH: Mr. Chairman, I rise at
18 this moment specifically with regard to the pending
19 motion. I will address your question momentarily, but,
20 first of all, have to put my answer in context.

21 I am simply rising to advise the Board
22 that there may be some possibility that we would be
23 asking for some, to the extent the record is muddled,
24 that we would be asking for some further clarification
25 for the purposes of the motion. I am simply suggesting

1 and I want to advise the my friend before he took a
2 position, that that risk would be minimized if we had
3 those documents.

4 Now, I do believe there is a distinction
5 between the appropriateness of us asking for Board
6 positions, Hydro Board positions in the context of this
7 motion and in the hearing in general.

8 I don't want to argue the motion at this
9 point, Mr. Chairman, but our position is that, in
10 essence, Hydro is currently making planning decisions
11 which are not in accord with the evidence that it's own
12 witnesses have taken.

13 If it is indeed our position and we have
14 some information on the record that leads us to suspect
15 that or to take that position, that the corporation
16 through its legal directors is not acting in accord
17 with the sworn evidence, and I am not suggesting
18 anybody is misleading this panel, I am just saying that
19 if the situation has changed sufficiently so that they
20 are no longer following the recipe that we heard
21 evidence about, then I do believe that it is
22 appropriate for that to be brought to this Hearing
23 Panel's attention.

24 THE CHAIRMAN: I don't think that we can
25 - anticipate problems at the moment that haven't been

1 clarified and do not exist.

2 If there are matters of a nature that are
3 relevant to the motion that should be further dealt
4 with, then the time to do that I think is in the
5 context of the motion. I would hesitate now to make
6 any pronouncements or consideration to those kinds of
7 matters unless they are brought up in that context.

8 What we are dealing with now is the
9 evidence that we have asked Hydro to bring forward, to
10 update its Panel 10. They are doing that. If that
11 creates problems in the motion then the time to deal
12 with that I think is on the motion itself.

13 MR. D. POCH: That's fine, Mr. Chairman.
14 With that distinction, in essence, it may not be ruled
15 upon but noted by the Board, I can resign. Thank you.

16 MR. B. CAMPBELL: May I address this
17 matter?

18 THE CHAIRMAN: I thought it had been
19 disposed of, so I guess the answer to that is no. It
20 has to be brought up later. This is Mr. Shepherd's
21 concern. You certainly can address Mr. Shepherd's
22 concern.

23 MR. B. CAMPBELL: I understand that, Mr.
24 Chairman. Mr. Shepherd has indicated that we are
25 prepared to provide certain materials which normally we

1 would not be. I think in fairness, in light of the
2 rulings at the Board, I would like to hear some
3 explanation as to what has happened in this matter and
4 why we are prepared to deal with these minutes. I
5 think you ought to have the context for this
6 discussion.

7 THE CHAIRMAN: I effectively postponed
8 Mr. Poch's concern at least until the motion because my
9 mind isn't working in the motion context.

10 MR. B. CAMPBELL: I am not discussing
11 this in the context of Mr. Poch's motion; I am
12 discussing this in the context of Mr. Shepherd's
13 request which was made of me yesterday with respect to
14 board of directors' minutes.
15 [9:58 a.m.]

16 THE CHAIRMAN: Well, I'm not sure I know
17 specifically what Mr. Shepherd's request was.
18 Shouldn't I know that first?

19 MR. B. CAMPBELL: Well, as I understand
20 it, Mr. Chairman, what happened - and I think you ought
21 to understand this - I was approached yesterday to
22 determine whether I would produce minutes for the board
23 of directors' meetings for September, October, November
24 and December.

25 I should advise the Board that at the

1 same time a representative of IPPSO contacted my client
2 and requested December board minutes and that there has
3 been correspondence between Mr. Passmore and my client
4 suggesting that certain of the December, consequences
5 of the December decisions were in effect completely
6 inadvertent.

7 And, as I understand it, the reason for
8 the request for the minutes is because, as it was
9 stated to me yesterday, there is a suggestion that in
10 dealing with these matters - and the suggestion has
11 been made directly to my client by the IPPSO person who
12 contacted my client - that in fact some of the evidence
13 given yesterday, and I understand it to be in relation
14 to the under 5 megawatt NUGs, was in some way
15 misleading.

16 I don't understand how, but it is
17 suggested to me presumably that the minutes will reveal
18 that in some way this was misleading.

19 As I say, I don't understand how, my
20 client doesn't understand how exactly, but the request
21 for the minutes was in furtherance of a suggestion that
22 was made to me and to my client directly by an IPPSO
23 representative that there was some misunderstanding or
24 misleading nature to the evidence.

25 It is only in that context, it is only in

1 that context that we have said we don't think so. I
2 think the minutes will show that, but, you know, there
3 are minutes for -- I'm not sure there is anything
4 relevant in November. There are minutes for September
5 and October. They have been approved.

6 Once the January board meeting is
7 complete there will be minutes approved. I cannot
8 undertake to give the December minutes now because they
9 wouldn't be approved until January.

10 But it is only in the face of the
11 suggestion that in some way the evidence here is
12 inconsistent with the decision that was taken that I am
13 prepared to even consider producing that kind of
14 document. I do not believe that it is inconsistent,
15 but I think it is important that the Board have the
16 context of this, particularly given the fact that there
17 is a lot of what seems to be coming up in a lot of
18 different forums or at least the request seems to be
19 flowing to Ontario Hydro from a lot of different
20 directions from IPPSO, and we just want to put it to
21 bed.

22 THE CHAIRMAN: Sorry, Mr. Shepherd.

23 MR. SHEPHERD: Mr. Chairman, I actually
24 only arose to advise you of what I understood to be an
25 agreement between myself and Mr. Campbell, which I

1 think he has described fairly. I think we are going to
2 have some discussions about the scope of what is
3 tabled, but I think in principle we are in agreement.

4 My concern, Mr. Chairman -- and this may
5 arise again later in other contexts. My concern is, we
6 have witnesses here who are testifying under oath the
7 board of directors did this, the board of directors did
8 that. To the best of my knowledge, none of these
9 witnesses has been at a board of directors meeting and
10 so has not, cannot testify from their own knowledge
11 that these things happened, and therefore, all I am
12 asking is that they show us the legal proof that these
13 things happened. It is not a big deal.

14 THE CHAIRMAN: Well, I am most reluctant
15 to get into this kind of an issue in this hearing in a
16 general way. I think once you get into the inner
17 workings of any corporation, particularly one of this
18 size and magnitude, you get yourself into very much of
19 a morass.

20 As far as I am concerned, the evidence
21 and the position taken by Ontario Hydro was given by
22 its witnesses who appear at this panel and by the
23 documents which they file, and in general that would be
24 the position.

25 There may be specific instances where - I

1 never close the door on anything - that that general
2 position may have to be qualified, but in general I
3 think in order to make some reasonable approach to what
4 we have to deal with here we have to take what the
5 witnesses say as the position of the proponent.

6 MR. SHEPHERD: Mr. Chairman, having spent
7 a lot longer on that little thing than I anticipated I
8 am ready to start my cross-examination.

9 I advised Ms. Morrison yesterday that I
10 expected that I could be as long as 20 hours.
11 Obviously, I am hoping that I won't be 20 hours. If I
12 had to guess I would guess that I will finish sometime
13 on Tuesday, all other things being equal.

14 THE CHAIRMAN: You have very much in mind
15 the general nature of Mr. Campbell's position that he
16 has taken with both Mr. Rogers and Mr. Castrilli, that
17 we are really here only to deal with the 796 documents
18 and not with a return to issues that have already been
19 fully canvassed in other panels?

20 MR. SHEPHERD: I don't think Mr. Campbell
21 will have any problem with the scope of my
22 cross-examination.

23 THE CHAIRMAN: Well, that is fairly good
24 news.

25 MR. SHEPHERD: I am filing two pieces of

1 evidence, Mr. Chairman. The first prepared by IPPSO is
2 entitled "Graphs for IPPSO's Cross-Examination of
3 Ontario Hydro Witness Panel 11".

4 THE REGISTRAR: That will be 938.

5 ---EXHIBIT NO. 938: Document entitled "Graphs for
6 IPPSO's Cross-Examination of
Ontario Hydro Witness Panel 11".

7 MR. SHEPHERD: And the second is entitled
8 "Letter from Minister of Energy to IPPSO re Ontario
9 Hydro's Report on Business Planning and Capital Program
10 Review", dated December 15th, 1992.

11 THE REGISTRAR: That will be number 939.

12 ---EXHIBIT NO. 939: Document entitled "Letter from
13 Minister of Energy to IPPSO re
Ontario Hydro's Report on Business
14 Planning and Capital Program
Review", dated December 15th,
15 1992.

16 MR. B. CAMPBELL: Mr. Chairman, I take it
17 these are reserved numbers?

18 THE CHAIRMAN: Yes. There have been some
19 numbers reserved in the middle so that it will all
20 become clear when you get the list from the...

21 We had to reserve some numbers because we
22 didn't know what was coming in, and we have done it as
23 best we can.

24 MR. SHEPHERD: I'm sorry, Mr. Campbell,
25 does that mean these should not be the exhibit numbers

1 for these exhibits?

2 MR. B. CAMPBELL: No, no. I was just
3 concerned because we popped over a thousand and I
4 didn't realize those numbers had been reserved.

5 THE CHAIRMAN: What numbers remain
6 unused?

7 THE REGISTRAR: 940. And then you
8 mentioned this morning 941 to 1017 had been used.

9 THE CHAIRMAN: So we have got one left,
10 940.

11 MR. GREENSPOON: Could you repeat those
12 numbers?

13 THE CHAIRMAN: IPPSO's exhibits are 938
14 and 939.

15 MR. GREENSPOON: In which order?

16 THE CHAIRMAN: In which order? The
17 graphs are 938 and the letter is 939.

18 MR. GREENSPOON: Thank you.

19 CROSS-EXAMINATION BY MR. SHEPHERD:

20 Q. Let me start with a question on
21 something you were just talking about with Mr.
22 Castrilli, and it raised a question in my mind. This
23 is on the first page of schedule 1 of attachment H.
24 You were talking about Little Jackfish and the 10-year
25 approval, having a 10-year approval in your pocket,

1 that issue. You know what I am talking about there?

2 MR. SNELSON: A. I recall Mr.
3 Castrilli's question on the last paragraph of that
4 page.

5 Q. The second last line of that says --
6 we are talking about how much can branches put in your
7 budget, and it says:

8 This allowance should not include the
9 cost of a full EA hearing or intervenor
10 funding.

11 Do I assume from that and from your
12 answer that your expectation is that once you have a
13 requirement and rationale approval from this Board that
14 there will be no further hearing on Little Jackfish?

15 A. No, I don't believe that is the
16 assumption. This is a direction to the branches not to
17 include expenses for a site-specific hearing on Little
18 Jackfish in their budgets.

19 Q. Why?

20 A. I don't think it is any more than
21 that.

22 Q. Why not include the expenses?

23 A. I don't know the specifics, but it
24 could have been with respect to whether -- I don't know
25 the specifics, I'm sorry.

1 Q. What does it mean to have an
2 opportunity to obtain an EA approval with minimal work?
3 Does that mean no hearing?

4 A. I have some briefing notes on the
5 status of the Little Jackfish hearing. If you will
6 just give me a minute I will...

7 I believe the government review of Little
8 Jackfish was released to the public on October 1st last
9 year and that the reference to 10-year banking is
10 somehow associated with the proposed terms and
11 conditions of approval that were associated with that,
12 and that the 90-day public review period would have
13 concluded yesterday. Beyond that, I'm afraid don't
14 have any more information.

15 Q. Well, then, I wonder if could you
16 undertake to advise us why Hydro feels it is not
17 appropriate to include the cost of a full EA hearing or
18 intervenor funding, notwithstanding the expectation
19 that you will be able to obtain an EA approval?

20 MR. B. CAMPBELL: If it assists my friend
21 I think I can deal with that right now.

22 MR. SHEPHERD: Okay.

23 MR. B. CAMPBELL: When a government
24 review is published there is a decision to be made
25 under the Environmental Assessment Act as to whether a

1 hearing is required, and there have been a series of
2 terms and conditions, as I understand it, possible
3 terms and conditions discussed in the government
4 review.

5 Ontario Hydro, believe it or not, does
6 not view the conduct of hearings as an inevitable part
7 of its business, and I think there is some hope in this
8 case that appropriate terms and conditions can be
9 worked out such that a hearing may not be required.

10 I think it is no more complicated than
11 that. There is no statutory requirement necessarily
12 for a hearing.

13 MR. SHEPHERD: Q. Coming back on this
14 then to you, Mr. Snelson, if what your counsel
15 describes comes about - that is, there is no hearing on
16 the site-specific aspects of Little Jackfish - am I
17 correct in understanding that if you get the approval
18 sought in this hearing, 1,400 to 1,800 megawatts of
19 hydraulic, that there is then no further public
20 consultation process prior to the building of that
21 project?

22 MR. SNELSON: A. I think there is a
23 legal question there as to whether we have all the
24 approvals that we need, and I wouldn't wish to give
25 legal opinion as to whether there will be other public

1 consultation processes.

2 Then, public consultation and discussion
3 with people who are involved in a project is an ongoing
4 part of our conduct of projects. It is not only
5 associated with formal hearings. And so I couldn't say
6 that there would be no further consultation with the
7 public.

8 Q. Fair enough. Who do I ask about Kidd
9 Creek?

10 MR. B. CAMPBELL: Kidd Creek?

11 MR. SHEPHERD: Q. Kidd Creek, the
12 Falconbridge -- biggest user in the province?

13 MR. BURKE: A. Depends what you want to
14 ask about.

15 Q. Mr. Burke, I'm sure you will be aware
16 that you were in the Globe and Mail this morning, first
17 page above the fold, talking about electricity rates.
18 That's not what I want to ask about, however.

19 It is also reported there, and I think it
20 has been reported elsewhere, that Falconbridge, the
21 largest industrial user of electricity in the Province
22 of Ontario, has a plan that they expect to approve in
23 the next 90 days to cogenerate at their Kidd Creek
24 facility; is that correct?

25 A. I'm not the person to ask about that

1 sort of decision-making at Falconbridge.

2 Q. Who is?

3 MR. B. CAMPBELL: Presumably Falconbridge
4 is.

5 MR. SHEPHERD: Q. Let me ask a different
6 question. This would be if they got rid of most of
7 their load, this would be 700 megawatts; right? Big
8 customer.

9 MR. BURKE: A. Of that order.

10 Q. It would make a big difference to
11 your load forecast, your primary load forecast?

12 A. There are lots of things that could
13 make a difference to the primary load forecast. None
14 of these issues would be resolved in the very short
15 term; especially any cogeneration project would take
16 several years to come on stream. It is one of the many
17 risks associated with the forecast.

18 Q. You did a forecast of natural NUGs,
19 didn't you?

20 A. Yes, there is a forecast of natural
21 NUGs in this attachment C of Exhibit 796.

22 Q. To what extent did that forecast of
23 natural NUGs include major industrial users displacing
24 a significant portion of their load?

25 A. The forecast of natural NUGs that is

1 in -- the document is in fact only looking at
2 industrial non-utility generation, and in preparing the
3 forecast econometrically, as is described there, we
4 discussed the results we were getting for the first few
5 years of the forecast period with the NUGs division to
6 see whether the sort of orders of magnitudes of numbers
7 that we were getting corresponded to the kinds of
8 orders of magnitudes they were seeing from their
9 knowledge of the marketplace and what was going on
10 within industrial customers, what projects were being
11 contemplated, and so on.

12 One of the reasons we stuck with a
13 particular scenario at least for the first five or 10
14 years that we have here is that they seemed to think
15 that the numbers we were coming up with were what they
16 understood to be consistent with the plans they were
17 aware of in the industrial sector in Ontario.

18 Q. Is anybody on this witness panel
19 familiar with the discussions between Hydro and
20 Falconbridge about Kidd Creek?

21 MR. SNELSON: A. I am not, and I doubt
22 that any other members of the panel are.

23 Q. I am just looking for a reference
24 here. Yesterday I believe under cross-examination by
25 Mr. Castrilli there was a discussion about Falconbridge

1 and Kidd Creek in the context of -- here it is, page 87
2 of attachment C. Sorry, I didn't realize we would have
3 this much difficulty with this point. I thought it was
4 fairly straightforward.

5 So now here at the bottom of page 87 --
6 now, this is your report, right, Mr. Burke?

7 MR. BURKE: A. Yes.

8 Q. The paragraph near the bottom says:

9 In our forecast continued operation

10 at Kidd Creek...

11 that is the same Kidd Creek we are talking about,
12 presumably. That's Falconbridge; correct?

13 A. Yes.

14 Q. ...is assumed with zinc accounting
15 for 12 per cent of this sector's load.

16 And then you go to the bottom of that paragraph. It
17 says:

18 The possibility exists of shifting
19 the highly electric-intensive
20 electrolytic smelter load to
21 Falconbridge's Quebec smelters if Hydro
22 rates remain lower there.

23 Well, obviously another possibility is they just
24 generate it themselves; right?

25 A. It's another possibility, I suppose.

1 Q. Obviously, this is an important
2 enough issue that you put a whole paragraph about it in
3 your end-use report. What is the impact? How many
4 megawatts are we talking about here?

5 A. The load of our individual customers
6 is not public information.

7 You can talk to them. If they would like
8 to tell you what their load, you know, on Ontario Hydro
9 is, that's fine. But the information they provide us
10 about their load and their expected loads is
11 confidential between us and our customers.

12 MR. SHEPHERD: Mr. Chairman, I object to
13 the answer by the witness. They put the customers'
14 name in their report. They specifically said it was an
15 important enough issue to put it in here. I think they
16 have got to tell us what that means.

17 [10:20 a.m.]

18 MR. B. CAMPBELL: Mr. Chairman, we are
19 not prepared to and I would object to providing
20 detailed customer information.

21 In my submission, the information that is
22 in the report gives enough sense of the amount of load
23 involved, that it is fully adequate for any purposes
24 that this Board might require that information for.

25 I might remind the Board that this matter

1 has come up before, there have been requests for
2 specific customer information and the Board has
3 consistently ruled that we are not required to produce
4 that. It has come up before, when I say they have come
5 up before, they came up before from Mr. Shepherd.

6 We are not prepared to do that and in my
7 submission the Board should, given that it has, in my
8 submission, sufficient general information for its
9 legitimate purposes, it should maintain the view that
10 it took in earlier rulings.

11 MR. SHEPHERD: Mr. Chairman, I think I
12 can solve this problem fairly easily.

13 Q. The first sentence of this paragraph,
14 Mr. Burke --

15 THE CHAIRMAN: Am I right that this is
16 all in the context of not electricity generation but in
17 the general productivity of these various industries;
18 is that what this section is about?

19 MR. BURKE: No, this section is about the
20 industrial load of our customers. It's actually not
21 necessarily about the load on Ontario Hydro. It is
22 about the load of our customers. It is the forecast of
23 the industrial demand for electricity in Ontario.

24 We later determined the amount of
25 non-utility generation load displacement, non-utility

1 generation; in other words, of that load that is not
2 met by Ontario Hydro.

3 So at this stage we are not concerned
4 with whose supplies the power only what the demand for
5 electricity will be.

6 THE CHAIRMAN: Sorry, I interrupted you,
7 Mr. Shepherd.

8 MR. SHEPHERD: Q. Mr. Burke, in the
9 first sentence of that paragraph we are talking about,
10 it refers to this sector's load. This sector it
11 mining, milling, smelting and refining; correct?

12 MR. BURKE: A. Yes.

13 Q. What is the load in that sector?

14 A. I think you will find it on page 84.

15 Q. Good.

16 A. Table 3.3.2. Mining, milling
17 smelting 1989 load is given there as 6,500
18 gigawatthours, 6.5 terawatthours.

19 Q. Give us a rough conversion to
20 capacity so we can use terms that we are familiar with.

21 A. Well, I hesitate to do that.
22 Typically industries would have in excess of an 80 per
23 cent load factor.

24 Q. Have I got my decimal right, we are
25 talking about 1,000, 1,100 megawatts, something like

1 that?

2 I am just trying to get orders of
3 magnitude here.

4 A. Something under 1,000 megawatts.
5 Between 900 and 1,000, I would guess.

6 Q. Good. Okay. Now, this whole
7 exhibit, Mr. Snelson - coming back to you for a while -
8 this whole exhibit here, 796, with all the attachments,
9 am I right, that's really a package of several things
10 that aren't really fully integrated to each other;
11 right? There is a bit of circularity there in the
12 sense that some things include numbers from other
13 things, and then feedback into other things, and they
14 are not really internally consistent; is that correct?

15 MR. SNELSON: A. I see circularity and
16 internal consistency as being different issues.

17 Q. Internal consistency is what I am
18 asking about.

19 A. They are not 100 per cent internally
20 consistent because there are a number of documents
21 which were prepared over a period of time as the
22 situation evolved. So some of the documents are the
23 statement of a position, say, as it was in September,
24 and then subsequent events have changed those. So
25 there are a number of different vintages, I think would

1 be the correct expression, of information in those
2 documents.

3 Q. To the extent that information in the
4 documents depends on information in other documents,
5 often the figures you are providing us for things are
6 based on outdated information, right? For example, the
7 system incremental costs are based on outdated capital
8 plans and outdated load forecast, things like that;
9 right?

10 A. Each document has been prepared at
11 the time it was prepared with the best information
12 available at that time. Due to the passage of time and
13 due do the length of time it takes to produce
14 information, then yes, some of the information by the
15 time it is produced or by the time it has been
16 submitted here, that there may have been some changes
17 that would not be accounted for in that document.

18 Q. Oh, yes. I am not suggesting you did
19 anything wrong, Mr. Snelson. I think what you have
20 done over the last three or four months is incredible.

21 But it is true that it doesn't all hang
22 together and show a seamless plan; does it?

23 A. I have discussed the fact that there
24 are different vintages of information.

25 Q. Are you at some point over the next

1 little while going to try to put them into a consistent
2 set of data?

3 A. I think we have always been in the
4 situation of changing information and that we expect
5 that to continue. I don't think that you can
6 necessarily assume that things will stay steady enough
7 at any one time of point in time, that you can produce
8 a completely seamless fully consistent set of
9 information using the latest numbers.

10 Q. In December you made an announcement,
11 you, Ontario Hydro, made an announcement, freezing all
12 non-utility generation existing and future; right?

13 A. Generally, yes.

14 Q. In general, the data in this report
15 in 796, in the attachments, the data now, SICS and
16 things like that, does not reflect that at all, does
17 it?

18 A. That's correct.

19 Q. And you haven't said anywhere here,
20 you haven't described your decision to reverse your
21 policy favouring under 5 megawatt NUGs, have you. We
22 wouldn't find that anywhere in this document.

23 A. I have not described a reversal in
24 policy with respect to under 5 megawatt NUGs except
25 that my understanding is that under 5 megawatt NUGs are

1 included in the hold that is placed in the December
2 board meeting.

3 Q. Okay.

4 This raises the first, Mr. Chairman, of
5 the board of directors' issues that is of concern to
6 me, and I will just put the question to Mr. Snelson
7 and, I expect he won't be able to answer but I will put
8 it to him anyway and see what happens.

9 Is it correct, Mr. Snelson, that the
10 Hydro board of directors did not in fact specifically
11 discuss changing the under 5 megawatt policy and that
12 in fact it did not put its mind or deal with in any way
13 whether under 5 megawatt NUGs would be frozen; is that
14 correct?

15 A. I was not at the board meeting and so
16 I cannot comment on the specifics of what was discussed
17 and what was not.

18 Q. Okay. Just a little side question
19 here. If you will turn to yesterday's transcript, page
20 30430. If you look at line 6, you are talking about
21 projects, the NUG projects you put on hold, and you
22 said it's the projects that don't have full approval.
23 You made clear that you are dealing with both over 5
24 megawatts and under 5 megawatts, and you say:

25 "Full approval would constitute going

1 right through to having an Order in
2 Council."

3 Now it is true, isn't it, that in orders
4 in council are only for over 5 megawatts projects;
5 right?

6 THE CHAIRMAN: I'm sorry?

7 MR. SHEPHERD: Over 5 megawatt projects.

8 MR. SNELSON: I don't the answer to that
9 question. I'm sorry.

10 MR. SHEPHERD: Q. This was you talking
11 here, wasn't it?

12 MR. SNELSON: A. It was me talking and I
13 can tell you the number of projects that are currently
14 considered to be on hold by our non-utility generation
15 division.

16 Q. No, that's not what I am after. You
17 already said that.

18 A. That includes under 5 megawatt
19 projects.

20 Q. Okay. I guess my question, what I am
21 trying to find out is, do you have some new rule that
22 says that under 5 megawatt projects must have an Order
23 in Council to be approved?

24 A. And the definition as to which
25 _projects need Order in Council and which do not are

1 something which I am afraid I don't know.

2 Q. Will you undertake to answer that
3 question?

4 MR. B. CAMPBELL: Well, the simple
5 question is, has it been the practice that under 5
6 megawatt projects require Order in Council approval?

7 MR. SHEPHERD: Yes, is that currently the
8 case.

9 MR. B. CAMPBELL: Yes, we can find an
10 answer to that.

11 MR. SHEPHERD: Okay. I need a number.

12 THE CHAIRMAN: We need an undertaking
13 series. Make is 940.

14 THE REGISTRAR: 940.1.

15 ---UNDERTAKING NO. 940.1: Ontario Hydro undertakes to
16 provide whether it been the practice that
17 under 5 megawatt projects require Order
in Council approval.

18 MR. SHEPHERD: Q. Let me just jump
19 around here a little bit. I couldn't find anything in
20 here at all about Darlington. Can you update us on the
21 status of Darlington? Last time we heard we didn't
22 know what was going to happen. Do you know now?

23 The last time we had evidence, you had
24 problems with Darlington that were not yet solved. Are
25 they now solved, are they still unsolved? What is the

1 situation.

2 MR. SNELSON: A. I believe they are well
3 on their way to being solved. Units have been brought
4 back into operation with the change in the impellers in
5 the pumps, and that the expectation is that the units
6 will come into service over the next short while.

7 I haven't got the precise figures with
8 me, but my understanding is that essentially two units
9 are operating and one unit is in the course of fairly
10 advanced commissioning.

11 Q. And the operating units presumably
12 then have there full AECB certification? They don't
13 have that sort of, you know, temporary certification
14 that AECB sometimes gives when things are being worked
15 out? They have the full certification?

16 A. I am not familiar with the details of
17 the certification of Darlington.

18 Q. Your current expectation is that
19 before the end of 1993 all four units of Darlington
20 will be operating at full capacity?

21 A. We are confident by '93 we are
22 planning on three units being fully in-service, and we
23 are not quite sure about the in-service date of the
24 fourth. In terms of long-term planning we are relying
25 on all four units, but these dates do shift around a

1 little.

2 Q. Well, in all these load and capacity
3 balance things in here, how many Darlington units are
4 working in '93 and how many are working in '94? This
5 is 4,000 megawatts we are talking about, so you must
6 know what the numbers are in your own data.

7 MR. DALZIEL: A. The illustrative plan
8 that is described in attachment J of Exhibit 796 is
9 assuming that all four units of Darlington will be
10 in-service for 1994.

11 Q. So winter peak 1994 which is in
12 January, you are running all four units?

13 A. January 1994.

14 Q. You are running all four units then?

15 A. All four units are able.

16 Q. So by the end of 1993 we have got all
17 four in; is that fair?

18 A. Yes.

19 Q. Let me just ask you a quick question
20 about schedule G.

21 Actually, before I do that, Mr. Chairman,
22 I have a lot of small topics here before I get to the
23 major ones. When would you like to take the break?

24 THE CHAIRMAN: Around quarter to.

25 MR. SHEPHERD: Fair enough.

1 Q. So schedule G, that's the analysis of
2 the ranking of the surplus management options; correct?

3 MR. DALZIEL: A. Yes, it is.

4 Q. And that used the March 1992 system
5 incremental costs?

6 A. Yes.

7 Q. How far along are you in updating
8 that analysis to reflect the vastly different November
9 1992 system incremental costs?

10 THE CHAIRMAN: Did you say vastly
11 different?

12 MR. SHEPHERD: Vastly different.

13 THE CHAIRMAN: There is an
14 editorialization in that.

15 MR. SHEPHERD: Q. You may ignore vastly
16 different in the question.

17 MR. DALZIEL: A. I am not aware of how
18 far along we are in redoing this evaluation.

19 Q. You are doing it, presumably.

20 A. Well I don't even know if we are
21 doing it. I don't know if we have started it at this
22 point.

23 Q. Let me just make sure I absolutely
24 understand. You are going to do it and you may have
25 started, but you are not sure or you don't even know

1 whether you are going to do it?

2 A. If it is under way, I do not know
3 that it is under way. And in addition to that, I don't
4 know when we would start to this.

5 Q. Has a decision been made --

6 A. So the answer to has our decision
7 been made to start this, as far as I know there has
8 been no decision to redo this.

9 Q. Okay.

10 THE CHAIRMAN: But you plan to do it
11 sometime, I assume, you have been doing it fairly
12 regularly over the years; is that not right?

13 MR. DALZIEL: No.

14 MR. B. CAMPBELL: Which analysis are we
15 talking about?

16 MR. SHEPHERD: Surplus ranking.

17 THE CHAIRMAN: I thought it was the SIC
18 analysis. I hope I'm...

19 MR. SHEPHERD: No.

20 MR. B. CAMPBELL: No, it's not.

21 THE CHAIRMAN: It's not. I'm sorry.

22 MR. B. CAMPBELL: I think it is this
23 economic ranking, and I think Mr. Dalziel has already
24 indicated that he is not aware of there being any
25 decision to redo it.

1 THE CHAIRMAN: I am sorry, I
2 misunderstood the line of questioning.

3 MR. SHEPHERD: Q. Okay. Then, Mr.
4 Dalziel, could you turn to page 2 of that schedule.
5 This is schedule G we are looking at here. And it
6 makes clear in that first full paragraph there that
7 this isn't really the right way to do this analysis;
8 this is sort of a quick back-of-the-envelope way to do
9 it; right? It's not a bad way but it's not a good
10 disciplined way of doing this sort of analysis;
11 correct? Is that a fair analysis of what that's saying
12 right there?

13 MR. DALZIEL: A. I think what it is
14 saying is that it is a reasonably quick and efficient
15 method of coming up with an economic ranking of options
16 for managing the surplus. There may be better ways,
17 there may be more thorough ways of doing that, and
18 there are, but they wouldn't be as quick or as
19 efficient.

20 Q. It does say that the estimate of an
21 option's benefit will not be precise; right?

22 A. Yes, it says that.

23 Q. And you do have rules that say that
24 you don't do analysis of big options, hundreds of
25 megawatts, using system incremental costs but that's

1 exactly what you did here; right?

2 A. Generally we have acknowledged that
3 the use of SICS for large capacity changes, they are
4 not generally appropriate for doing that. Yet we did
5 use the SICS, fully recognizing that, and that is what
6 we have acknowledged in this paragraph.

7 Q. And the reason why you don't use SICS
8 for that is because they don't produce reliable
9 results; right?

10 A. The results may or may not be
11 reliable. I think generally we acknowledge that when
12 you come to large capacity changes, there are better
13 ways of doing the analysis with more confidence than
14 relying on the SICS.

15 Q. Okay. And in fact, the better way is
16 production simulations; right? That's the normal way
17 you do hundreds of megawatt options; correct?

18 A. For a significant capacity change,
19 yes.

20 Q. Well, you have got 1,000 megawatts
21 here, 750 megawatts there, those are big enough to do a
22 production simulation normally; right?

23 A. Yes.

24 Q. But you didn't do any?

25 A. That's right.

1 Q. The point of this study, as I
2 understand this, is to rank the options, not get
3 numbers; right? The numbers themselves you are not so
4 happy with but the ranking you are pretty happy with;
5 correct?

6 [10:40 a.m.]

7 MR. SNELSON: A. Yes, I believe I said
8 that in my direct evidence.

9 Q. Now, given the fact that you have
10 used this sort of -- and I don't mean this in a
11 pejorative way, but this shortcut, you only had so much
12 time to get to this ranking, I presume that before you
13 actually implement any of these billion dollar
14 decisions you do the proper analysis; right?

15 A. We considered that the analysis that
16 we did was adequate for the decisions that were taken.

17 Q. So you then didn't do any more
18 analysis of these major decisions except what we have
19 seen right here; is that correct?

20 THE CHAIRMAN: By 'right here' you are
21 confining yourself to attachment G?

22 MR. SHEPHERD: No, Exhibit 796 and
23 attachments.

24 MR. SNELSON: Well, there are many facets
25 that are covered in here. There are things that are

1 subject to ongoing analysis. For instance, I have
2 discussed the fact that we are examining the
3 transmission implications of the new load forecast that
4 is part of Exhibit 796.

5 But at this point in time what we have in
6 Exhibit 796 is the most up-to-date analysis that we
7 could include for the benefit of this Board.

8 MR. SHEPHERD: Q. Okay. So when you
9 cancelled the Manitoba contract, that is 1,000
10 megawatts, that is however many billion dollars of
11 dollars we argued about earlier -- and that is not even
12 in schedule G; right? Cancelling Manitoba isn't even
13 in here anywhere? Was there some sort of analysis on
14 whether it was a good idea to cancel it or did you just
15 do it?

16 MR. SNELSON: A. There was some
17 analysis.

18 Q. And do we have it?

19 A. You do not have the analysis that
20 preceded the December board memo.

21 Q. Can we have it?

22 MR. B. CAMPBELL: No, Mr. Chairman, we
23 are not prepared to produce that analysis.

24 We are in the course of going through a
25 process of terminating the Manitoba contract. Notice

1 of termination has been given. There are provisions in
2 the contract as to how payments to be made are to be
3 calculated, and we are not prepared to produce the work
4 that deals -- which in effect is the very work that Mr.
5 Shepherd is talking about.

6 We are not prepared to produce it at this
7 time because it has the potential to jeopardize the
8 discussions that need to take place with Manitoba Hydro
9 as to the amount of the termination payment, which is
10 quite substantial.

11 In my submission, notice of termination
12 having been given that resource is no longer available
13 in the demand/supply balance, and in any event apart
14 entirely from confidentiality reasons, commercial
15 confidentiality reasons we would take the position that
16 in any event that option not being available, notice of
17 termination having been given, its merits or demerits
18 on any economic basis are entirely irrelevant at this
19 point in any event.

20 MR. SHEPHERD: So do I understand Mr.
21 Campbell to be saying that--

22 THE CHAIRMAN: Just a minute.

23 MR. SHEPHERD: Sorry.

24 THE CHAIRMAN: Go ahead.

25 MR. SHEPHERD: --once Hydro has decided

1 that they are not interested in the Manitoba contract
2 anymore that subject is off the table, we can't raise
3 it again?

4 THE CHAIRMAN: I don't think he said
5 that. I think he confined it, as I understood, to the
6 confidential nature of what was presented to the board
7 which led to the cancellation.

8 I guess my question to you is, why do you
9 need this information in order to present your case?

10 MR. SHEPHERD: Well, I guess there are a
11 couple of reasons, Mr. Chairman.

12 I don't have a concern too much about the
13 confidentiality question, and if it means that we can't
14 see this until April or May or June whatever, fair is
15 fair, you know. We don't want to make them have to pay
16 250 million instead of 150 million. Bad enough as it
17 is.

18 But I think that it would be very useful
19 to this Board if what this board found in May or June
20 was that they had made a 13 or 15 or whatever billion
21 dollars decision with a one-page analysis that had no
22 rigour and no research at all. Then, when they ask
23 you, trust us, we want an approval for Little Jackfish
24 and we want to be able to do it whenever we feel like,
25 you might say, well, no, we are not so sure that we

1 want to give you an approval with a long shelf life,
2 thanks very much. You don't seem to do a very good
3 analysis of these things.

4 THE CHAIRMAN: Well, I think there is a
5 statement that first of all, the proposal made by
6 Manitoba Hydro is on the record and the fact that that
7 proposal was not acceptable to Ontario Hydro. That
8 gives one bracket, if you will.

9 MR. SHEPHERD: Yes.

10 THE CHAIRMAN: We do know that there was
11 some analysis good, bad or indifferent that was
12 presented to the Board, and I think we will have to at
13 this time at least leave it at that.

14 MR. SHEPHERD: Fair enough, Mr. Chairman.
15 Just one other question.

16 THE CHAIRMAN: Could we take the break?

17 MR. SHEPHERD: Yes, okay.

18 THE CHAIRMAN: There is a commitment so
19 if we could just stop right on and then we can come
20 back at eleven o'clock.

21 THE REGISTRAR: Please come to order.
22 This hearing will recess for 15 minutes.

23 ---Recess at 10:45 a.m.

24 ---On resuming at 11:03 a.m.

25 THE CHAIRMAN: Please be seated.

1 MR. SHEPHERD: Q. Still looking at the
2 economic analysis related to your various decisions,
3 surplus management decisions, Mr. Snelson, you are
4 mothballing four units of Lakeview in 1993, now you
5 didn't actually do that analysis in this report either,
6 did you? You didn't do an analysis of what would
7 happen if in 1993 you mothballed four units of
8 Lakeview, did you?

9 MR. SNELSON: A. I'm sorry, which
10 particular document is it you say that doesn't consider
11 it?

12 Q. You are welcome to find it anywhere
13 in this package, but my understanding is attachment G
14 is your analysis of surplus management options, and I
15 didn't see 'close Lakeview in 1993' anywhere in there.

16 MR. DALZIEL: A. The assessment of the
17 retirement of four units at Lakeview assumes that they
18 would be retired --

19 Q. Page 8, Mr. Dalziel.

20 A. Yes, it is on page 8. It is
21 described in that paragraph, retired as of January,
22 1997.

23 Q. So you didn't do the 1993 analysis?

24 A. No, that's correct.

25 Q. Given the differences to incremental

1 cost presumably it would produce a different number;
2 right? Has to, doesn't it?

3 A. Yes.

4 Q. But somebody suggested to your board
5 of directors close them anyway. On what basis did you
6 make that recommendation?

7 MR. SNELSON: A. The analysis that is in
8 attachment G is intended to put surplus management
9 options on to a comparable basis for assessing a number
10 of options.

11 There are also other analyses that are
12 done within the Corporation. For instance, the Power
13 System Operations division has to deal with what will
14 happen in next few years, and they would have had to
15 consider whether an early closure of Lakeview units was
16 acceptable to them or not.

17 Q. It is 1,140 megawatts; right? Four
18 units is 1,140 megawatts?

19 A. Approximately, yes.

20 Q. And it is accepted that the number
21 you get out of the 1997 closure analysis isn't the same
22 number as you would get if you did it for 1993;
23 correct? Mr. Dalziel has just said that.

24 MR. DALZIEL: A. That's correct.

25 Q. Okay.

1 A. And the analysis that is described in
2 attachment G, the purpose of that analysis is to
3 determine an economic order, an economic ranking of the
4 surplus management options.

5 Q. But the option you analyzed is the
6 one you did, is it?

7 A. At the end of the day. Not those
8 particular dates, no. In other words, the decision was
9 not to retire Lakeview units in 1997 as is the starting
10 point in the analysis.

11 The reason 1997 is used as often as
12 possible in the analysis is to try and put all of the
13 options that are being deferred within a comparable
14 time frame so that the SICs that are being used are
15 generally the same and that the analysis is then
16 generally consistent for achieving the purpose of
17 putting an economic order on the ranking.

18 Q. In fact, somewhere in here you say
19 that doing that standardized sort of analysis doesn't
20 help you optimize any individual decision; right? You
21 still have to optimize in each case?

22 A. That's right. It is not looking at
23 the optimal timing for any particular deferral or
24 mothballing decision. It is simply saying on as
25 consistent a basis as possible, and using 1997 as a

1 start date where it is reasonable to do so, what would
2 be the economic order of the mothballing or deferring
3 options. That is what attachment G accomplishes.

4 Q. So then, I assume that between doing
5 this analysis of close four units of Lakeview in 1997
6 and making a determination to do it in 1993, that is
7 that process of optimizing the timing; right? You must
8 have done some sort of analysis of that to get to 1993;
9 right?

10 A. I can't add to the type of analysis
11 that Mr. Snelson described a few moments ago.

12 MR. SNELSON: A. I think the determining
13 factor of the timing of Lakeview mothballing is more a
14 question of the load and capacity situation.

15 Having recognized that from an economic
16 point of view Lakeview mothballing is probably -- or
17 Lakeview early retirement or mothballing is the
18 preferred option from among the existing system
19 options, and having accepted that that is probably an
20 option that will be pursued, the precise timing of it
21 is as soon as it can be accommodated and as soon as it
22 is needed from a load and capacity point of view.

23 So if you have capacity -- if you decided
24 to do it and you had the surplus capacity that will
25 enable you to do it in '93 you would do it in '93. It

1 is a very simple matter.

2 Q. Mr. Snelson, you mentioned that Power
3 Systems Operations would have had to do some sort of
4 analysis. Is that a cost/benefit analysis? Would they
5 have done a cost/benefit analysis of some sort?

6 A. I think that the analysis that would
7 have contributed to this particularly would have been
8 their consistent energy set type of analysis and their
9 short-term planning types of analysis as to whether in
10 fact they have sufficient capacity for '93 and '94 and
11 so on.

12 So they do at times do economic analysis,
13 but I don't think this would be necessarily primarily
14 an economic decision. It is more likely to be a
15 capacity decision.

16 Q. This shouldn't be as difficult as it
17 is, and maybe I will just ask a very simple question
18 and we will see where we are.

19 You made a decision to shut down 1,140
20 megawatts in 1993. Anywhere in the organization did
21 you do a cost/benefit analysis of that decision? It is
22 a yes/no question. Either there is one or there isn't
23 one.

24 MR. B. CAMPBELL: I'm sorry, Mr.
25 Chairman --

1 THE CHAIRMAN: I think they can answer as
2 they see fit.

3 MR. SHEPHERD: Fair enough.

4 MR. SNELSON: I think the analysis that
5 we know of you have the major elements in front of you.

6 There is the economic ranking of deferral
7 options. There is the analysis that is in the
8 attachments to the board memoranda of September and
9 October, which describes, I believe attached to the
10 September board memo there is a scenario which has a
11 number of actions taken, and there would have been
12 estimates made of the OM&A savings to the board on how
13 much money they are going to save, and so on. But in
14 terms of a formal cost/benefit analysis I don't know of
15 one.

16 MR. SHEPHERD: Q. When staff asks the
17 board of directors to make major decisions typically
18 you do a memorandum, like a recommendation memorandum;
19 right? We have seen a number of those filed in this
20 hearing.

21 MR. SNELSON: A. Yes, it is normal to
22 have a board memorandum requesting a decision, and then
23 the board considers it and makes the decision as it
24 sees fit.

25 Q. Other than what we have seen here was

1 such a memorandum prepared for the closure of four
2 units of Lakeview?

3 A. Not to my knowledge.

4 Let me just be a bit more specific there.
5 The decisions in October which related to the closing
6 of two units at Lakeview, yes, there was a board
7 memorandum, and it is attachment A here.

8 Q. That we have seen. Yes, of course.

9 A. The further decision in December with
10 respect to the second pair of units I certainly -- I am
11 not aware of a board memorandum on that.

12 Q. Well, I sense I am getting into a
13 very delicate area, but let me take a crack at this
14 anyway. To your knowledge, did -- well, let me put it
15 another way.

16 The October decision to close two units,
17 that was a decision that management went to the board
18 and said, we are asking you to make this decision, we
19 are recommending that you do it; correct?

20 THE CHAIRMAN: I think we are getting
21 into an area here that I don't think we should be
22 getting into. We have been through this many, many,
23 many times. What goes on between the management and
24 the board I don't think this Panel is particularly
25 interested in.

1 MR. SHEPHERD: Mr. Chairman, my view and
2 I will make it my submission, I guess, is that --

3 THE CHAIRMAN: I mean, haven't we dealt
4 with this many, many, many times in the hearing before,
5 today?

6 MR. SHEPHERD: As I read Mr. Snelson's
7 evidence, and maybe I am just misunderstanding it and
8 that is why I am pursuing it, it sounds like the
9 Ontario Hydro board of directors with no information
10 before it, no analysis before it, and --

11 THE CHAIRMAN: That is not his evidence.
12 His evidence is what information there was before,
13 whether that was sufficient or not is a matter for
14 argument, but he's told you what they had, and what we
15 have, what is here.

16 MR. SHEPHERD: I had not yet finished my
17 point, which is that with no information before it
18 other than what it had already seen in October when it
19 had already made its decision, and with no requests
20 from management before it, which is what I was trying
21 to get at, nevertheless made a decision that involves
22 billions of dollars.

23 And it would appear to me, and it is my
24 submission, Mr. Chairman, that if in fact that is how
25 Ontario Hydro makes decisions that is very relevant to

1 how this Board makes its determination.

2 MR. B. CAMPBELL: Well, with respect, Mr.
3 Chairman, my friend has misstated the situation.

4 There was clearly additional information
5 in front of the board in December with respect to the
6 load forecast which indicated that there was a further
7 lowering of the view as between October and December as
8 to the short-term forecast, and it is not correct for
9 my friend to suggest to you that there was no further
10 information. That is simply not correct.

11 THE CHAIRMAN: I think you should proceed
12 to another point.

13 MR. SHEPHERD: Q. Mr. Snelson, you have
14 frozen NUGs and reduced their level by about 750
15 megawatts by the year 2000. You have also, as I
16 understand it, made some fairly substantial changes in
17 the amount of demand-side management you intend to rely
18 on over the next 10 years. That is how I understand
19 your evidence, anyway. Correct me if I'm wrong.

20 Can you tell me whether, other than this
21 material before us here, any economic analysis was done
22 of those decisions?

23 MR. SNELSON: A. That is a very big
24 question, and there are a lot of assumptions in there.
25 Perhaps you want to go through them one at a time.

1 [11:15 a.m.]

2 Q. Oh, okay. You made a determination
3 that you will rely on 750 megawatts, roughly, less NUGs
4 by the year 2000. Did you do an economic analysis of
5 that other than the one in attachment G which uses old
6 SICS and only deals with 500 megawatts. Did you do
7 another economic analysis of that with real data?

8 A. There have been many projections
9 around for non-utility generation, I am not sure which
10 one leads to your 750 megawatt difference.

11 Q. You had a number of 3,100 megawatts?

12 A. 3,100 megawatts was a target. At
13 time of Panel 10 we indicated that was a target which
14 we wanted to have the capability to achieve, but as
15 part of surplus management, that our illustrative case
16 showed us achieving a lesser number. I can look the
17 number up.

18 The amount that is in the projection that
19 you see in attachment J, yes, attachment J, is higher
20 than the amount that was in the illustrative surplus
21 management and lower than the target that was
22 considered to be achievable. So that is the situation
23 and we have described that.

24 The economic analysis shows that
25 non-utility generation in the 1990s, that most of that

1 non-utility generation' that is in the projection for
2 1990s is uneconomic for that time period. It might be
3 economic at a later time period, but it's uneconomic
4 for that time period largely because it's being bought
5 during a period of surplus capacity.

6 Q. I am not disagreeing with you on
7 that, Mr. Snelson, my question is far simpler than
8 that. You have said it's not economic.

9 A. Yes.

10 Q. Did you do an analysis of that? If
11 you did, can I see it, or is this it?

12 A. The representative analysis is the
13 500 megawatt, is shown in G.

14 Q. So this is it?

15 A. That is the analysis that we are
16 relying upon to indicate that deferring non-utility
17 generation is beneficial.

18 Q. Okay. You are not going to be
19 relying on as much demand management in the next 10
20 years either; is that correct? Program-driven demand
21 management, sorry.

22 A. Well, the program-driven demand
23 management is as indicated in Mr. Burke's forecast and
24 looked at from a certain perspective of just the
25 straight differential between the basic and the primary

1 load, and it is lower for the reasons that he and Mr.
2 Shalaby have discussed.

3 Q. All right. And you did an economic
4 analysis of that in here somewhere, right, various
5 categories, correct, in attachment G?

6 A. Attachment G looks at some potential
7 deferrals of demand management options, yes.

8 Q. That's the only economic analysis
9 there is of those decisions too; correct?

10 MR. BURKE: A. No. I think that we have
11 stated in main Exhibit 796 that the analysis of 850
12 megawatt deferral that's on page 5 of 796 has been
13 superseded by the analysis that went into the load
14 forecast that was approved by the Board in December.

15 The analysis that went into the Board in
16 December, a summary of it is in chapter 5, and we will
17 at some point soon, hopefully, be producing a report
18 equivalent to Exhibit 76, but for this load forecast
19 which will go through sort of item by item the
20 estimates of potential and attainable demand management
21 that are imbedded in the load forecast, but a summary
22 that's contained in attachment C and each item was
23 screened for its economics as they stood in September,
24 which is what I said in my direct evidence and I think
25 is also stated in the attachment C.

1 Q. Sorry, I am obviously just dense this
2 morning, Mr. Burke.

3 Each of the items in the demand
4 management as included in the load forecast was
5 screened based on September numbers; is that what you
6 just said?

7 A. I said that the screening was done in
8 September. The SICS that were used were the best
9 available at that time.

10 Q. Okay. So the screening that was done
11 in September, that is attachment G; isn't it?

12 A. No.

13 Q. So you had two different people doing
14 screening in September. Attachment G is September;
15 isn't it?

16 A. No, attachment G is describing
17 options that were contained in the previous load
18 forecast for demand management, and the economics of
19 those options were being assessed for deferral, whether
20 it was economic due them on the schedule that they were
21 currently on or whether they should be deferred.

22 What we have in attachment C is a new
23 load forecast with new loads by end-use, new
24 opportunities, less opportunity in some other areas.
25 And as we have said, the page that I have referred to,

1 page 5 of 796, essentially the analysis we have now
2 supersedes that.

3 Q. So am I safe to assume then that in
4 all this mass of paper where there is all sorts of
5 discussion about demand management reductions, changes,
6 et cetera, that the only ones that matter are the ones
7 in attachment C; all this other stuff is now out of
8 date?

9 A. I think that's fair, yes.

10 Q. Okay. Two other quick points on
11 this. Mr. Snelson, I think this is you that said this.
12 I will see. If you could turn to page 30438 of the
13 transcript of yesterday.

14 MR. SNELSON: A. I presume that's
15 30,438.

16 Q. Yes, 30,438.

17 A. We now have more pages than we have
18 islands around Parry Sound. [Laughter.]

19 Q. As I understand what you are saying
20 between lines, I think this is you, between lines 9 and
21 21, is --

22 THE CHAIRMAN: Perhaps you could give him
23 a chance to read it, that's 10 lines.

24 MR. SNELSON: Yes, I recall that
25 evidence.

1 MR. SHEPHERD: Q. Okay. So as I
2 understand what you are saying here, the March 1992
3 SICS were basically up about 10 per cent, and then
4 November 1992 is going back down about 10 per cent, so
5 it really wasn't that necessary to do new cost benefit
6 ratios for hydraulic in this case because you are just
7 going back to where you were; right?

8 MR. SNELSON: A. That's not quite an
9 accurate summary.

10 Q. Maybe you could characterize it then.

11 A. The comments about increases and
12 reductions were with respect to long-term system
13 incremental values, which are the ones that influence
14 hydraulic projects most because of their long,
15 typically about 90-year life, and so that is what tends
16 to drive the hydraulic evaluations, the long-term
17 values, and it was not an indication that there was no
18 need; it was an indication to re-evaluate. It was a
19 rough estimate of the expected change when that's next
20 done. It's not necessarily saying that there is no
21 need.

22 Q. Okay. But your expectation is that
23 you will be back to roughly the cost/benefit ratios we
24 heard in Panel 6?

25 A. That's my expectation, yes.

1 Q. And in making that estimate, do I
2 assume that you have taken into account the change in
3 the structure of the system incremental cost, that is
4 the extent to which more is now energy and less is now
5 capacity, those sorts of changes over the last six
6 months. You have taken that into account in making
7 that estimate?

8 A. No, I reviewed the comparisons for a
9 relatively high load factor option in coming to that
10 conclusion.

11 Q. Sorry, you reviewed what? I didn't
12 hear you.

13 A. I reviewed from Exhibit 796,
14 attachment D--

15 Q. Yes?

16 A. --the figure that is given for the --
17 I believe it's 70 per cent capacity factor option, and
18 that's on page 11 of that attachment.

19 Q. Page 11?

20 A. I see figure 2 on page 11 of
21 attachment D which is the comparison of March and
22 November system incremental values, project appraisal.

23 Q. So you didn't take into account any
24 change in the relative importance of power values and
25 energy values?

1 A. I did not. I would not expect there
2 to be a large effect on the long-term, though I would I
3 would expect there to be some shifts in the period of
4 surplus.

5 Q. I take it you didn't take into
6 account the specific pattern of energy and capacity
7 production that any given hydroelectric facility would
8 provide?

9 A. As I said, no, I did not. And over
10 the long-term, this is beyond the period of the
11 capacity surplus, I wouldn't expect those proportions
12 to change very much.

13 Q. You are not anticipating 70 per cent
14 capacity factor from the hydraulic that is currently in
15 your plans, are you?

16 A. No.

17 Q. Okay. I guess there would have to be
18 some adjustment for your new inflation forecasts as
19 well, right, in terms of costs, the cost side of the
20 cost/benefit analysis? Inflation, discount rates, et
21 cetera.

22 A. Those are all the matters that would
23 be included in a new evaluation of a cost/benefit
24 analysis.

25 Q. Your corporate financial evaluation

1 manual provides that major decisions on generating
2 capacity should not be done without an up-to-date
3 economic analysis; is that correct?

4 THE CHAIRMAN: Are you reading from a
5 document?

6 MR. SHEPHERD: No, I am asking that
7 document, which is in the record, the corporate
8 financial evaluation manual says that.

9 THE CHAIRMAN: Have you got that handy?

10 MR. SNELSON: I don't have the manual
11 with me.

12 MR. SHEPHERD: Q. We know what the
13 answer is, don't we?

14 MR. SNELSON: A. It's a question of what
15 is the definition of the decisions and at what stage in
16 the process that is required.

17 Q. Perhaps you could turn to schedule H
18 of this package. Correct me, if I am wrong, this is a
19 description of the capital business plan, the
20 preliminary capital business plan; correct?

21 A. I'm sorry?

22 Q. This a description of the preliminary
23 capital business plan; correct? You have a process
24 where senior management says to the branches, here is
25 some numbers, here is some assumptions, now do your

1 planning. Give us back answers.

2 That's what this is; right?

3 A. Specifically this is the
4 communication from the chair of Ontario Hydro to the
5 vice-presidents requesting them to submit their capital
6 program budgets on a certain basis and to describe the
7 basis for the submission of those capital program
8 budgets.

9 Q. Okay. And included in this, on the
10 first page you will see, right at the bottom, the
11 chairman has instructed the branches to review even
12 committed expenditures to determine if they can be
13 deferred or cancelled; correct?

14 A. That is what it says, yes.

15 Q. Now, nowhere in this package 796, as
16 I understand it, do we have the answer to that, what
17 committed expenditures you have in fact gotten rid of
18 over this 10-year capital plan; is that correct?

19 A. I think this is an exhortation to the
20 vice-president to try and avoid the expenditure of any
21 money that is not required, and not to take these
22 directions as being explicit authority to include what
23 is here, whether or not they still see it as being
24 desirable, as necessary.

25 Q. Okay. Well, Mr. Snelson, a couple of

1 pages on you will see in schedules 2 and 3, these are
2 branch by branch budgets, capital budgets; correct?
3 Let me rephrase that, that's wrong. The budgets are
4 what the branches will prepare.

5 Schedule 2 is a ceiling on uncommitted
6 and schedule 3 is a reference case for committed
7 numbers; correct?

8 MR. DALZIEL: A. Yes, it is.

9 Actually, I am noticing something, if I
10 could just take a moment to correct something I said
11 earlier, especially while Mr. Castrilli is here.

12 Schedules 2 and 3 do reflect the capital
13 reductions that are summarized in schedule 4. I think
14 earlier I had said schedule 4 you would back out those
15 numbers from the values in schedules 2 and 3.
16 Schedules 2 and 3 already reflect the capital
17 reductions.

18 Q. Okay. And now do I understand
19 correctly that what the chairman is saying to the
20 branches is, so here is the maximum total, see if you
21 can give use less, see if you can give us budgets that
22 have lower numbers?

23 MR. SNELSON: A. That's a reasonable
24 paraphrase I think of what the chairman said.

25 Q. If you look at the second page of

1 that attachment, I understand that the deadline for
2 that was November 16th; right?

3 A. Yes.

4 Q. So can you tell us what the numbers
5 are then?

6 MR. B. CAMPBELL: Mr. Chairman, we are
7 now getting right into - and I object to this question
8 and this line - we are now getting right into exactly
9 what you have indicated time and time again you do not
10 want to get into. That is the internal process of how
11 directions go out to management of Ontario Hydro, how
12 they start to respond to them, and matters in the
13 normal planning cycle get brought to the board of
14 directors.

15 To the extent that decisions have been
16 made that are relevant to this inquiry and to the
17 approvals that are being requested, they have been
18 fairly put before you in the material here. This is an
19 ongoing management process that is not yet complete.

20 To the extent decisions have been taken
21 in the capital area, you have been advised and the
22 material has been provided. I think it is entirely
23 inappropriate to start stepping into the whole capital
24 budgeting process, which is what my friend is doing.

25 MR. SHEPHERD: Mr. Chairman, in the first

1 place, to the best of my knowledge Mr. Campbell is not
2 sworn and therefore I don't care whether he says we
3 have been advised of everything; I want the witnesses
4 to say that under oath.

5 Secondly if this is not yet, this
6 information is not yet available, they can tell us, and
7 I'm happy to say, fine, if it's not available it's not
8 available. But they filed this information, they filed
9 this chart of 10 years of expenditures. If it's no
10 longer right, I think I am entitled to ask what is the
11 new number. If they don't have it, it's okay.

12 THE CHAIRMAN: I thought I understood
13 that we had, from Mr. Snelson, presently the best
14 available information they had. Now, if that's not
15 right and that could be qualified in any way, he can
16 say so. But I understand that this schedule, read
17 together with the other schedules, brings us up to
18 January 6th, 1992 and that's as far as we can go at
19 this point; is that correct?

20 MR. SNELSON: Yes, I believe it is.

21 The matters that we felt that were
22 relevant in this document to this process were the
23 better definition of the planning assumptions for
24 Niagara, Mattagami, Little Jackfish, the dates,
25 in-service dates that are attached in schedule 1, and

1 some of the commentary that goes with it.

2 [11:37 a.m.]

3 I don't think that we felt that detailed
4 capital budgets by branch were particularly the reason
5 for submitting this document. This document was just
6 to give more substance, more detail to the planning
7 decisions that were made in October in respect to the
8 capital budget, the capital programs.

9 MR. SHEPHERD: Q. Do I understand you...
10 I have to be very careful how I word this.

11 Do I understand you to be saying that
12 there is no more recent information than this, or
13 alternatively that there is more recent information but
14 you don't think it is relevant?

15 MR. SNELSON: A. I believe that there
16 would have been a response to the request for
17 submissions by November the 16th, and they would have
18 been received on or about that date. They are not
19 matters that I would normally dig into as part of
20 long-term planning and I am not familiar with them, but
21 I would expect they do exist.

22 Q. Okay. But I don't think that is what
23 I am really after, Mr. Snelson.

24 A. I thought that is what you were
25 asking for.

1 Q. Not really, no. Maybe I have just
2 been inelegant here.

3 I understand that internally at Hydro you
4 have submissions back and forth, and you have a number,
5 and then you discuss it, and then you have another
6 number, et cetera, but there are some milestones, some
7 points at which you have information that you actually
8 do things with; right?

9 A. Yes.

10 Q. Budgets, for instance?

11 A. And those can be big or small
12 milestones.

13 Q. Of course. And this represents one
14 milestone where the Chairman says, here's the numbers
15 you start with. And the next milestone presumably is
16 some form of preliminary budget that people actually
17 start to work with. And all I am asking is, if we are
18 there yet, if we have that set of numbers, can we have
19 them?

20 THE CHAIRMAN: And his answer is he
21 doesn't think he needs them for the 796. This is just
22 given to in effect provide a continuity to where you
23 reach 796. Is that what you are saying?

24 MR. SNELSON: Yes. I think perhaps more
25 specifically if we were -- we would not have considered

1 it necessary for long-term for this type of process to
2 have included schedule 2 and schedule 3. But we did
3 feel that the description that was in schedule 1 of the
4 general nature of the long-term plan that is behind
5 this gave some additional detail to the October
6 decisions, and that is why the document was included,
7 but the details of each branch's capital budget is not
8 something which I normally consider in long-term
9 planning and I am not sure is all that relevant to
10 long-term planning.

11 MR. SHEPHERD: Fine, Mr. Chairman. That
12 is as far as I want to go on that.

13 Q. Mr. Snelson, this attachment H, we
14 talked about in this last paragraph on the first page
15 examining more significant plans which have already
16 been committed... I am quoting here:

17 ...to determine if any of these plans
18 can be economically deferred or cancelled
19 as a result of current forecasts of need.

20 Now, this is obviously after the capital
21 program review, so I take it that the chairman is
22 asking for more proposals for deferrals or
23 cancellations, correct, or is suggesting it?

24 MR. SNELSON: A. Yes.

25 Q. Can you give us details of what

1 additional capital plans are being deferred or
2 cancelled as a result of this?

3 A. There have been additional capital
4 and operating plans that have been cut since October,
5 and we have told the Board about them. It is the plan
6 for the Manitoba Purchase and associated transmission
7 has been cut. That was the decision taken at the
8 December board meeting.

9 The further decision to close two
10 Lakeview units in December was an additional decision.
11 The decision to put on hold non-utility generation
12 projects at the December board meeting was an
13 additional decision, and those decisions we told you
14 about.

15 Q. I understand that.

16 A. Whether in fact as a result of this
17 somebody in the Regions branch has decided that a
18 transformer station could be delayed by a year or two
19 years, I don't know.

20 Q. Well, that is not what I am asking
21 about obviously. I am only asking about significant
22 ones, and I understand you to be saying the significant
23 ones you have told us.

24 A. We have told you about the ones we
25 consider to be significant.

1 Q. Okay. The next page of this
2 memorandum asks the branches to identify the extent of
3 writeoffs, cancellation or penalty payments and any
4 deferred project balances that will result from this,
5 from project deferrals.

6 Have you provided the information on what
7 the impact of these various things is going to be to
8 Hydro? All these various deferrals and cancellations
9 and everything that is in this evidence, will I find in
10 here somewhere how much it is going to cost you to do
11 that?

12 A. Clearly, there is a cost to the
13 cancellation of the Manitoba Purchase.

14 Q. Am I right that is around 150
15 million?

16 THE CHAIRMAN: I think that is an area we
17 don't want to get into.

18 MR. SHEPHERD: I'm sorry, Mr. Chairman.
19 Maybe I --

20 THE CHAIRMAN: The cost of cancellation
21 of the Manitoba Purchase is a current matter, I expect,
22 of discussion, according to what Mr. Campbell told us
23 this morning, between Ontario Hydro and Manitoba Hydro,
24 and that is a matter I don't think this Board at this
25 time wants to get into.

1 MR. SHEPHERD: I understand the
2 confidentiality question. I guess it has to go in
3 Hydro's published budgets in the next matter of weeks.
4 All I want is order of magnitude. I don't want --

5 THE CHAIRMAN: I don't think they should
6 be asked to give those figures.

7 MR. SHEPHERD: All right.

8 THE CHAIRMAN: This is a planning
9 hearing, Mr. Shepherd. I realize that you and your
10 clients have some very distinct issues with Ontario
11 Hydro, but this is not the place to resolve some of
12 them.

13 MR. SHEPHERD: Q. Mr. Snelson, is it
14 correct to say that Ontario Hydro issued a press
15 release in which they said the cost of cancelling the
16 Manitoba Purchase was less than half of a \$300 million
17 amount?

18 MR. B. CAMPBELL: Well, I am not sure if
19 Mr. Snelson has the press release with him. If that is
20 what the press release says, that is what the press
21 release says. I don't want Mr. Snelson confirming that
22 unless he has access to the document. I'm not sure he
23 does.

24 MR. SHEPHERD: I will file this, Mr.
25 Chairman. This is something that they told the

1 newspapers, it is going to cost us \$150 million. And
2 it shouldn't be a big deal to fuss about in here.

3 THE CHAIRMAN: Get on to something else,
4 Mr. Shepherd.

5 MR. SHEPHERD: Okay.

6 Q. Are there any other significance
7 cancellation or other costs associated with these
8 various changes? Just the big ones.

9 MR. SNELSON: A. I am just trying to
10 think through the various changes. And if a process is
11 stopped for the -- when the process is stopped for the
12 Northern Ontario interconnection, then any monies that
13 have been spent for that would have to be expensed.

14 Q. Oh, that is the Manitoba contract
15 again but the transmission side of it?

16 A. Well, that is not the Manitoba
17 contract; that is the Northern Ontario interconnection,
18 which would be cancelled if the contract is
19 cancelled -- is cancelled when the contract is
20 cancelled.

21 Q. You don't have an idea of how much
22 that will be?

23 A. I don't have a figure for that, no.

24 Q. And presumably on some of this stuff
25 there will be contract penalties, severance costs, that

1 sort of thing associated with stopping what you are
2 doing on various capital programs; is that correct? I
3 don't want the details, just the concept is correct,
4 isn't it?

5 A. Well, there can be such costs. I am
6 trying to think of what contracts and so on that we
7 might be into cancelling based upon the October
8 decision or the December decision.

9 Q. How many people are you laying off at
10 Lakeview as a result of its closure?

11 A. I don't know how many people will be
12 laid off. There will be a certain number of jobs that
13 will disappear and a variety of things will happen to
14 those people. Some people may have taken the early
15 retirement offer that was made to them. Some people
16 may be reassigned to other stations and handled through
17 attrition. So there is a variety of things that happen
18 to them. And there is a cost associated with that, and
19 that is accounted for in the budgeting process.

20 Q. Yes, understood. One of the things
21 we have talked about, Mr. Snelson, throughout this
22 hearing is the cost of overcommitting to capital plans.
23 If you overcommit and it turns out you don't need what
24 you have built or what you are building or what you are
25 planning to build, then there is a cost associated with

1 that; correct?

2 A. In a general sense, yes.

3 Q. And the longer the lead time of the
4 project, the bigger the cost typically?

5 A. Not necessarily.

6 Q. Is that a directionally correct
7 generalization?

8 THE CHAIRMAN: Well, perhaps you could
9 get on to what it is you want to ask him about in 796
10 in this context, and that might make it a little
11 clearer for him.

12 MR. SHEPHERD: Mr. Chairman, I am having
13 a problem here. When I ask the specific questions I am
14 being challenged on relevance because I haven't made
15 the general point yet. Now I am trying to lay the
16 groundwork with the general point so I can ask the
17 specific questions. Which order should I do it in?

18 THE CHAIRMAN: I think in this particular
19 case you should give him the specific question you want
20 to ask about 796.

21 MR. SHEPHERD: Okay.

22 Q. Is it correct, Mr. Snelson, that
23 Ontario Hydro currently expects that the overall cost -
24 not speaking of the termination payment now - the
25 overall cost of having committed to the Manitoba

1 contract and then deciding not to do it will add about
2 3 per cent to electricity rates in the province of
3 Ontario; is that correct?

4 MR. SNELSON: A. I don't have -- I
5 haven't seen an estimate.

6 THE CHAIRMAN: Have you got that from
7 some document or some statement?

8 MR. SHEPHERD: No, Mr. Chairman.

9 THE CHAIRMAN: Well, then how --

10 MR. SNELSON: I can't confirm that
11 number.

12 MR. SHEPHERD: Q. Mr. Snelson, you are
13 still seeking approval of the requirement and rationale
14 for 1,400 to 1,800 megawatts of hydraulic; correct?

15 A. Yes.

16 Q. So if I understand that correctly
17 then, you are saying that notwithstanding your
18 projections of substantial surplus in the foreseeable
19 future you believe that you require 1,400 to 1,800
20 megawatts of additional generation of that type?

21 A. Over the 25-year period we expect to
22 need more than the 1,400 to 1,800 megawatts of
23 capacity.

24 Q. And, in fact, you don't really need
25 it until 2010 -- around there, 2009/2010, according to

1 your capacity charts; correct?

2 A. I think that is assuming the
3 hydraulic is there. So the need for the hydraulic will
4 be somewhat earlier than that.

5 THE CHAIRMAN: I didn't hear the end of
6 that.

7 MR. SNELSON: Sorry, the 2009 date is
8 assuming that the hydraulic is built and is the need
9 for something beyond that. The need for the hydraulic
10 would be a little earlier than that, but it is not
11 around the year 2000. It is 2005 or later.

12 MR. SHEPHERD: Q. So then my question
13 is, based on this new information what is the earliest
14 date that you require additional hydraulic generation?

15 MR. B. CAMPBELL: Excuse me, Mr.
16 Shepherd.

17 I assume by 'require' you mean in a
18 simple capacity load and capacity balance sense. There
19 have been a number of reasons given for the request for
20 hydraulic approvals. Mr. Snelson has said those that
21 were discussed in Panel 10 are still extant.

22 I take it you are using 'requirement' in
23 a narrower sense, because if not I will suggest that he
24 has answered the question. If you are using it in a
25 simple 'we have this much capacity and we have this

1 much load', then I am quite content to have him answer
2 that question on that basis.

3 MR. SHEPHERD: Q. I will start there,
4 sure.

5 MR. SNELSON: A. I haven't done the
6 specific analysis with the new load forecast. I
7 understand that it is around the year 2005. As of the
8 time of the October board memorandum it was around the
9 years 2005 or 2006 on a straight capacity basis.

10 Q. Yes? Where's that chart? And, in
11 fact, if we look at attachment J, table A-1-2, now this
12 one has in it about, what, a net of about 1,000
13 megawatts by the year 2005 hydraulic; am I right?

14 THE CHAIRMAN: You are looking at the
15 line Uncommitted Hydraulic?

16 MR. SHEPHERD: No, because it has to be
17 adjusted, Mr. Chairman, for up-rated and down-rated
18 megawatts for the year 2002, as we heard earlier.

19 THE CHAIRMAN: So what line do we look
20 at?

21 MR. SHEPHERD: The combination, I
22 believe.

23 Q. But perhaps you could help me, Mr.
24 Dalziel?

25 MR. DALZIEL: A. Look at the line

1 Uncommitted Hydraulic.

2 Q. Yes?

3 A. And then with respect to the value in
4 the year 2002, the 921, you should also pick up the
5 minus 321 below that from the line Years Up-Rated or
6 Down-Rated.

7 Q. Okay.

8 A. And the amount of hydraulic,
9 additional hydraulic by the year 2000 would be about
10 1,000 megawatts.

11 Q. Okay. So then, if we go down to the
12 Balance line and we see that -- if we took out that
13 1,000 megawatts in 2005 you would be okay, in 2006 you
14 would be okay, but you would be close both years, and
15 by 2007 you are under the Balance line; correct?

16 A. That's right.

17 Q. All right. And that balance includes
18 reserve. So you can actually play with it a little
19 bit, but not too much; right?

20 [11:57 a.m.]

21 A. That's right.

22 Q. All right. So then if you don't need
23 the hydraulic until 2006, or perhaps 2007 according to
24 this chart - this is the new load forecast, of course -
25 then do I understand correctly the reasons why you want

1 approval to do it earlier are, in the case of Mattagami
2 because there are these other benefits associated with
3 Smokey Falls, and in the case of Niagara, because there
4 are these other benefits associated with the joint use
5 of the water; is that correct?

6 MR. SNELSON: A. That is part of it.
7 But all of the reasons that we have discussed in Panel
8 6 and Panel 10. I don't believe anything has changed
9 in that regard.

10 Q. I guess my question is, and we are
11 obviously going to be debating this at length in a
12 little while, you have no generic reasons, reasons that
13 are not attached to a site, you have no generic reasons
14 why want to put of the hydraulic in earlier; right?
15 You don't need the capacity.

16 A. In Panel 10, I gave four reasons for
17 needing hydraulic capacity on a generic basis, and I
18 said in my direct evidence that they still apply.

19 The first is to contribute to the
20 province's -- to the requirement for capacity and
21 energy over the 25-year period.

22 Q. Can I just stop you there. Whether
23 you build in 2007 or 2000, you have accomplished that
24 result; right?

25 A. Within the 25-year period, yes, but

1 that is a reason for proceeding.

2 Q. Okay.

3 A. Not necessarily reason for proceeding
4 early, but it's a reason for proceeding.

5 Q. Okay.

6 A. To make use of the province's
7 economic renewable indigenous energy resources is the
8 second reason I quoted.

9 Q. And that one again, that's not a
10 reaons for proceeding early, because in fact it's
11 better economically to proceed later; right?

12 A. No, I think that has implications for
13 proceeding early, because the indigenous energy
14 resource we are talking about and the renewable
15 resource we are talking about is an energy resource,
16 and we have just established that this later need date
17 is on a closely defined need date on a capacity basis.
18 The energy is useful as soon as you can get it, it
19 helps to reduce the combustion of coal and other such
20 matters. So that's a reason for proceeding at any
21 time.

22 The third reason was to respond to policy
23 direction from the provincial government, and the
24 specific there is that we, as we discussed in early
25 panels, we have had provincial government direction to

1 proceed with these projects through the environmental
2 assessment stage.

3 Q. Those are site-specific issues,
4 though, that's not generic. They haven't said proceed
5 with 1,800 megawatts of hydraulic; they have said
6 proceed with the Mattagami and proceed with Patten
7 Post, right, and Niagara for that matter?

8 A. And Jackfish.

9 Q. Okay.

10 A. And the fourth reason is to add to
11 the diversity and the flexibility of the system.

12 MR. SHEPHERD: Okay. Mr. Chairman, do
13 you wish to have lunch at this point?

14 THE CHAIRMAN: I understand that we could
15 keep going until 12:30 or stop at quarter to. That's
16 what I have been told to do.

17 MR. SHEPHERD: Is that new?

18 THE CHAIRMAN: But if you are ready to
19 stop now and want to come back at 1:15, that is fine
20 with me.

21 MR. SHEPHERD: No, I'm happy either way.
22 12:30 is fine.

23 Q. Let's talk about energy services.
24 Now, I get the impression and I certainly got it from
25 your direct evidence and a lot of places in here, that

1 there is a sort of an increasing focus on the urgency
2 of electricity rates, the price per kilowatthour that
3 you are charging for electricity. That's an
4 increasingly important issue; isn't it?

5 MR. SNELSON: A. Yes.

6 Q. I guess I thought that Hydro was
7 refocussing as an energy services company and that
8 therefore the cost of each kilowatthour should be less
9 important than the cost of the energy services being
10 delivered. Wasn't that the concept with an increased
11 demand management, et cetera?

12 A. Yes. And that still applies.

13 Q. And that still applies.

14 But then shouldn't that mean that the
15 increases in the rate per kilowatthour, they shouldn't
16 actually matter; right?

17 A. I don't think that that is the view
18 of our customers, and I don't think it should be the
19 view of anybody else either.

20 If an increase in the rate per
21 kilowatthour is being driven by expenditures on demand
22 management to reduce the number of kilowatthours sold,
23 and so the increase in the rate per kilowatthour is not
24 associated with an increase in the customer's
25 electricity bill, then that is something that we have

1 to deal with and should be acceptable according to the
2 total customer cost type principle. But customers are
3 interested in electricity rates and many of the
4 pressures that are driving rates up are not coming from
5 increased expenditures on the demand management; they
6 are coming from high fixed costs on generating plants
7 which is being divided over a few units, and there is a
8 need to control cost to keep rates under control.

9 Q. Tell me whether my math is right. If
10 you increase my bill -- sorry, not my bill, that's
11 wrong. If you increase the rate per kilowatthour that
12 you charge me by 25 per cent and I make my house 20 per
13 cent more efficient, my bill is the same; isn't it?

14 A. You're accounting here for the
15 different base of your 25 and your 20 per cent?

16 Q. That's right.

17 A. Presuming you have done that right,
18 and there is no real reason why that shouldn't be so.
19 You have taken 125 per cent and 80 per cent of 125, I
20 think is the math you have done.

21 Q. The point is not the math.

22 A. I realize.

23 Q. The point is I didn't see anywhere in
24 here where you said, after saying all these places rate
25 increase is a big problem, the sky is falling, et

1 cetera, I see nowhere where you see, but we are
2 improving efficiency through programs and indeed
3 customers will be improving efficiency through natural
4 demand management, and as a result the costs of energy
5 services will be this much higher or this much lower in
6 25 years than it is today. And the reason for that is
7 that you don't know that number, do you?

8 A. I don't think it's correct that we
9 have not looked at it from that perspective.

10 Q. Well, okay. I can find out in this
11 package of information how much rates per kilowatthour
12 are going to go up. Can I find out in this information
13 over the next 25 years how much the average bill of,
14 say, a residential customer will go up or down?

15 A. The concern with electricity rates
16 that we have discussed and the need to respond I
17 indicated in my evidence was a short-term pressure
18 caused by an increase in electricity rates. And the
19 demand management components of our plan have been
20 looked at from a total customer cost perspective which
21 takes into account the effects on the customer's bill.

22 Q. I described an effect and presumably
23 a number and I asked: Is it in here?

24 MR. BURKE: A. I agree with everything
25 that Mr. Snelson has said so I am only going to focus

1 on the demand management portion, which is a very small
2 portion of why rates are rising. But you certainly can
3 find in the load forecast the amount of efficiency
4 improvement and fuel switching, et cetera, et cetera,
5 that we think is going to happen over the next 25
6 years.

7 The cost associated with achieving that
8 and what its effect on rates is, I am not sure whether
9 that's in the package. But you do have what we think
10 will be the reduction from basic load through programs.
11 And it is also possible that we would not be able on
12 the 25-year basis to say what the costs of achieving
13 results are in any definitive way. We might be able to
14 give some maximum range of how much one would be
15 prepared to spend and that's the number that comes out
16 of the total customer cost test, and so is the
17 relevance of what Mr. Snelson was saying to this issue.

18 Q. Can you take a look at attachment E
19 to Exhibit 796, particularly to page 2. It's correct,
20 isn't it, Mr. Burke, that if you look in this chart,
21 table 2, under the heading near the bottom, Electricity
22 Ontario 1991 dollars, it's true, isn't it, that you are
23 currently projecting that the increase in electricity
24 rates for the 25 years ended 2015 will be about 37 per
25 cent real; correct?

1 THE CHAIRMAN: I have lost you. Where is
2 the 37?

3 MR. SHEPHERD: 7.48 cents per
4 kilowatthour to 10.26 cents per kilowatthour.

5 Q. I am happy if you just accept that
6 subject to check, unless you want to calculate it, Mr.
7 Burke.

8 MR. BURKE: A. Yes.

9 Q. And that increase given your
10 inflation projections means that you are currently
11 expecting that customers, residential customers will be
12 paying an average of 23 cents a kilowatthour in 2015,
13 is that correct, subject to check?

14 A. I think there is a table in the
15 document that gives the nominal price--

16 Q. Is there?

17 A. --for electricity, and for
18 residential average, page 35, yes, it indicates that.

19 Q. Page 35?

20 A. Table 14.

21 Q. Right. So a residential sector is -
22 oh, I was low - is 23.6 cents a kilowatthour; right?

23 A. In 2015 dollars.

24 Q. Yes. No, understood.

25 A. Wrap your mind around that concept.

1 Q. It's really only a 37 per cent
2 increase; right?

3 A. In real terms. Most of which occurs
4 beyond the year -- well, most of that which has not
5 already occurred, occurs beyond the year 2005.

6 Q. When you bring in the new generation?

7 A. Well, I'm not sure what all of the
8 reasons are, but beyond 2005.

9 Q. Well, in fact, don't you say in here
10 somewhere that the reason why it goes up in the last
11 seven or eight years of your forecast is because of new
12 generation coming on force? I will find the reference
13 if you like, but it is your report and you --

14 A. It is the single most -- single
15 largest factor.

16 Q. But it is correct that that 37 per
17 cent increase, that's not really a fair number, right,
18 in the sense that - how shall I explain this - if you
19 are right about the increasingly efficient use of
20 electricity over the next 25 years, people's bills
21 won't actually be 37 per cent higher; will they?

22 A. You mean residential customers?

23 Q. Yes.

24 A. On average? No, their bills will not
25 be that much higher, no.

1 Q. But we don't know how much higher
2 they will be?

3 A. You could probably figure out from
4 the information in front of you if that's an issue of
5 concern to you what proportion of demand we are saying
6 will be reduced in the residential sector, and so how
7 much of the increase in price will be offset by a
8 reduction in quantity.

9 Q. Well, in fact you have only
10 identified in the data here the program-driven demand
11 management, right, but there will also be rate-driven
12 and technology-driven demand management over the next
13 25 years; correct?

14 My new portable computer is 3.3 volt
15 rather than 5 volt, which means it consumes less power
16 to do the same thing.

17 As the rates go up, people turn off their
18 lights more on. That's all correct?

19 A. That's all correct. I am not sure
20 what you are getting at because --

21 Q. That isn't in here.

22 A. It's in the load forecast. The fact
23 that demand is responding to price, that there are new
24 technologies, all of that is in the basic load
25 forecast, but I am not sure what the point is.

1 Q. The point is that you said, we can
2 take this data and we can figure out how much will be
3 the effect on bills over 25 years, and I am suggesting
4 to you that that's not correct because you are not
5 providing us with how much electricity use is going
6 down because of natural demand management; are you?

7 A. I think perhaps what you are asking
8 is, could I somehow isolate all of the factors which
9 will reduce customers demand from all of those factors
10 which will tend to increase customer demand over the
11 next 25 years, and just look at one side of the issue
12 and attribute that to bill reduction, but forget about
13 the other side of the issue. And I guess what I am
14 saying is, no I can't do that, I don't think it's
15 meaningful.

16 What we can do is tell you what customers
17 would demand for all kinds of reasons and we can tell
18 what you the difference, what they would have demanded
19 without our demand management programs and what they
20 will demand after our demand management programs. But
21 to try to figure out how a customer should really feel
22 about his electricity bill in 2015 given that sort of
23 efficiencies of some items in his household has
24 improved whereas he has got twice as many of them as
25 before, and isolate the components that are on the good

1 side of the ledger from his point of view from those
2 which are actually pushing his bills up, yes I am not
3 able to do that and I don't think it is actually
4 possible to do a good job of that. It might be nice
5 but it's not really something that can be done.

6 Q. Mr. Burke, you may well be right. I
7 guess what I am concerned with is how can you as an
8 energy services company target the cost of energy
9 services to your customers if you have no way of
10 determining whether you are winning or losing and you
11 don't; do you?

12 A. I'm not sure where it is that you
13 found that we are targeting the cost of energy services
14 to our customers in total.

15 I think what we are looking at is the
16 impact of demand management programs to reduce
17 customers' bills so that the cost of the programs is
18 offset by the bill reduction, by the reduced
19 consumption of our customers more than paying for the
20 cost of the program.

21 Q. Fine. Let me turn then to another
22 issue. The status of the Bruce "A" nuclear generating
23 station. You mentioned that once I think in your
24 direct evidence, Mr. Snelson. I think it was you. As
25 I understand your evidence, the continued use of Bruce

1 "A" in the short-term or the long-term is currently
2 under review; correct?

3 MR. SNELSON: A. There is a review of
4 the Bruce "A" station under way, yes.

5 Q. Can you tell us how that review is
6 being conducted?

7 A. I think that the mechanisms of
8 conducting that review and what form of process will be
9 adopted in bringing that to our board of directors or
10 whoever is appropriate has not yet been decided.

11 Q. So presumably the review hasn't
12 started yet.

13 A. I believe an internal review team has
14 been set up, but they are in the process of initiating
15 the work and how it would be -- and how that work would
16 be reviewed.

17 Q. Okay. It is true, is it not, that
18 whatever results you come up with internally, it is
19 currently proposed that there be a public review of the
20 decision, whatever it is; is that correct?

21 A. There have been a number of
22 statements in that regard, and I'm not sure what type
23 of review, if any, will actually take place.

24 Q. I take it that this hearing does not
25 constitute, in any way, that public review; is that

1 correct?

2 A. As I understand it, the specific
3 decisions with respect to Bruce "A" are not the subject
4 of this hearing.

5 [12:18 p.m.]

6 Q. Bruce "A" is four units of 769
7 megawatts each; correct?

8 A. I can't confirm 769, but 750 to 800,
9 yes. It is over 3,000 megawatts of capacity.

10 Q. I thought I found it in there, but I
11 didn't. Anyways, it is a little over 3,000 megawatts
12 in total?

13 A. Yes.

14 Q. Okay. In the information before this
15 Board in Exhibit 796 Bruce "A" is included, including
16 all rehabilitation plans that were already in place
17 throughout all this documentation; right?

18 A. Yes.

19 Q. So Mr. Dalziel, then, will you look
20 at attachment J to table A-1-2, which we have already
21 looked at a couple of times. Have you got it?

22 MR. DALZIEL: A. Yes.

23 Q. Okay. And so except for the retubing
24 outages at Bruce "A" the whole Bruce "A" station is in
25 these totals all the way through; correct?

1 A. Yes.

2 Q. And we have already determined that
3 this number at the second last line, the balance, if it
4 is positive, it is your surplus for the year, right,
5 over and above your research margin?

6 A. Yes.

7 Q. However, this projection doesn't
8 include the recent decision to close all four units of
9 Lakeview in 1993, does it?

10 A. It does not reflect the decision to
11 remove from service Lakeview's Units 7 and 8 in '93.

12 Q. Well, it has --

13 A. It does show them being removed from
14 service in the year 2007.

15 Q. So for this period, 1994 to 2007,
16 your balance should be 570 megawatts less?

17 A. Yes.

18 Q. And with this adjustment you still
19 have a surplus problem from about 1993 to about 2005;
20 am I right?

21 A. Yes.

22 Q. Now, if Bruce "A" were mothballed
23 during that period and adjusting for the periods when
24 you expected to have Bruce "A" units out for retubing
25 in any case am I right that you would have no

1 significant surplus problem for any of that period?

2 A. Subject to what you have already
3 qualified about the retubing schedule. If you were to
4 remove Bruce "A" from the capacity balance you would be
5 removing about 3,100 megawatts in each year.

6 Q. Yes?

7 A. In that the surplus is about that
8 amount, but again subject to the years in which Bruce
9 "A" units are already out for retubing, there would be
10 some double-counting if you did that year by year. But
11 subject to that qualification, that's correct.

12 Q. Now, we tabled Exhibit 938. I am
13 just going to ask you to look at the graph on the first
14 page. All we have done here, Mr. Dalziel -- this is
15 not magic. All we have done is we have just -- the
16 line with the boxes is your numbers from that table
17 that we just read. That is the balance number, it is
18 the surplus if it is above zero, and it is a deficit if
19 it is below zero; correct?

20 A. Yes.

21 Q. And then, in the ones with the little
22 crosses that is adjusting for Lakeview. Does that look
23 about right to you, subject to check?

24 A. Looks about right. It is about 570
25 megawatts.

1 THE CHAIRMAN: And it includes the Bruce
2 outages, does it, for Bruce?

3 MR. SHEPHERD: The Bruce retubing outages
4 are in the original line--

5 THE CHAIRMAN: Yes.

6 MR. SHEPHERD: --because they have
7 already planned for that.

8 Q. Then, Mr. Dalziel, the last
9 adjustment there, which is called Bruce "A" mothball,
10 is just what happens if you close it while you have a
11 surplus, close Bruce "A" during that period of surplus.

12 Subject to check, does that seem about
13 right? I am not asking you to confirm it is exactly
14 right, just does it look about right?

15 MR. DALZIEL: A. Subject to check, yes.

16 Q. And so again subject to check, Bruce
17 "A" could have the effect, and obviously it might not
18 be a good idea economically, but it could have the
19 effect of getting rid of your surplus problem for most
20 of the period; right?

21 A. It would have that impact.

22 Q. All right. And just to confirm one
23 thing, take a look at 1998 on this chart and I guess
24 '99 as well. If you were to take your balance -- this
25 looks like 500, 600 megawatts below zero. That is

1 within your target range of reserve margin, isn't it?

2 A. What do you mean by 'within our
3 target range', the 20 to 24 per cent?

4 Q. Yes. Is it 20 to 24?

5 A. 22, 24?

6 Q. Yes, something like that.

7 A. It is below 500. That would be
8 stretching it. But generally, yes.

9 Q. So you have that sort of leeway and
10 5- or 600 is the edge of what is acceptable?

11 A. Yes.

12 Q. Wonderful. So I assume that in
13 whatever review Ontario Hydro does of the Bruce "A"
14 rehabilitation, these issues, how it affects capacity
15 balance and your surplus and everything will be dealt
16 with?

17 MR. B. CAMPBELL: Just a minute. Mr.
18 Chairman, I have been sort of sitting here for a little
19 while wondering where all of this was going, and just
20 as long as all we were doing was mathematics with no
21 significance then that is perhaps one thing. I think
22 this question goes --

23 THE CHAIRMAN: That is also an editorial
24 comment.

25 MR. B. CAMPBELL: I will try and restrain

1 myself.

2 At this point, however, I object to the
3 question. I think it has absolutely no relevance to
4 matters that are before this Board as to what the scope
5 of the Bruce "A" review is, which is the essence of
6 this question. It is not clear to me why this is
7 relevant to these proceedings.

8 THE CHAIRMAN: Well, I don't know how Mr.
9 Snelson on the basis of evidence he has given now could
10 give any assurance of what will or will not be done on
11 the Bruce "A" review.

12 MR. SHEPHERD: I guess what I am driving
13 at -- maybe I will skip a couple of questions and get
14 to the--

15 THE CHAIRMAN: All right.

16 MR. SHEPHERD: --cathartic question.

17 Q. Am I correct, Mr. Snelson, that for
18 the purposes of determining the issues before this
19 Board - that is, for the purposes of you as a planner
20 deciding what should the plan look like, or this Board
21 as decision makers determining what should the plan
22 look like - it is going to be important to see the
23 results of the Bruce "A" analysis. Whether the review
24 team does it or whether somebody else does it, somebody
25 has got to figure out is this 3,000 megawatts in or

1 out; right?

2 MR. SNELSON: A. Your last question is
3 that somebody has to figure out whether the 3,000
4 megawatts are in or out?

5 Q. Yes.

6 A. And that is what the Bruce "A" review
7 is doing.

8 Q. Okay. And in order to consider your
9 plan and your request for approvals is it fair to say
10 that any planner or any decision maker doing proper
11 planning would have to know whether it is in or out and
12 why; is that correct?

13 THE CHAIRMAN: Well, that is two parts.
14 Whether it is in or out is one, and why is another.

15 MR. SHEPHERD: Q. Okay. Whether it is
16 in or out first.

17 MR. SNELSON: A. All elements of the
18 existing system affect the need for new resources, and
19 so in that sense the status of the existing system has
20 an implication with respect to the need for new
21 resources.

22 Q. You will agree that whether 3,000
23 megawatts is in or out is more important than whether
24 20 megawatts at a transmission line is in or out?

25 A. Yes.

1 Q. Okay. Mr. Chairman, that might be an
2 appropriate time to break.

3 THE CHAIRMAN: We will break until a
4 quarter to 2:00.

5 THE REGISTRAR: Please coming to order.
6 This hearing will recess until 1:45.

7 ---Lunch recess at 12:29 p.m.

8 ---On resuming at 1:45 p.m.

9 THE REGISTRAR: Please come to order.
10 This hearing is again in session. Please be seated.

11 THE CHAIRMAN: Mr. Shepherd?

12 MR. SHEPHERD: Thank you, Mr. Chairman.

13 Q. Let me just clarify a couple of
14 points here. Mr. Snelson, I think you are the right
15 person for this.

16 There was a discussion with Mr. Castrilli
17 this morning about the transmission implications of the
18 Manitoba contract, and in general, as I understand it,
19 you have withdrawn your request for approvals for
20 transmission associated with the Manitoba Purchase; is
21 that correct?

22 MR. SNELSON: A. Yes. I believe both
23 myself and Mr. Campbell have said so.

24 Q. Now, is it fair for me to understand
25 that to the extent that some of that transmission would

1 be required to incorporate Little Jackfish or any of
2 the other facilities that you have not withdrawn that
3 portion of that package; correct?

4 A. There is still as part of the
5 hydraulic approval requested, as I understand it, the
6 approval for the transmission to incorporate -- the
7 rationale and need for the transmission to incorporate
8 the range of hydraulic generation.

9 Q. A second small point is with respect
10 to the load forecast.

11 Mr. Burke, do I understand you to have
12 testified that the board of directors of Ontario Hydro
13 has approved the 1992 long-term load forecast?

14 MR. BURKE: A. Yes, they approved it for
15 planning purposes.

16 Q. I guess I have never heard that term
17 'approved for planning purposes'. Is it different from
18 'approved'?

19 A. As far as I'm concerned, it is
20 approved.

21 Q. I'll just find my notes...

22 We were talking about the implications of
23 Bruce "A" on your planning. One effect of closing
24 Bruce "A" either permanently or for mothballing would
25 be that nuclear would then much less often be at the

1 margin over the next decade, wouldn't it.

2 MR. SNELSON: A. It would tend to have
3 that effect, yes.

4 Q. Let's just hypothesize for a moment
5 that the Bruce "A" review, your Bruce "A" review
6 however it is done, determines that it is cheaper not
7 to proceed with rehabilitating Bruce at this time; that
8 is, either mothballing it or closing it altogether is a
9 better decision economically. I am not asking you to
10 say that that hypothetical is necessarily a good one,
11 just that is the hypothetical.

12 In that situation by definition the
13 overall cost of electricity is lower than if you
14 proceeded with the rehabilitation; right? That is what
15 a cost/benefit analysis does; correct?

16 A. I think the question boils down to:
17 If it is cheaper, is it cheaper?

18 Q. Exactly.

19 A. And the answer is "yes".

20 Q. But isn't it also true that since the
21 marginal costs of nuclear energy are very low the value
22 of energy at the margin would be much higher under that
23 scenario of closing it; right?

24 A. The marginal cost of nuclear energy
25 is usually lower. You are correct. And for those

1 proportions of time when nuclear would otherwise have
2 been at the margin and is no longer at the margin then
3 the marginal costs would be higher.

4 Q. In effect, the increased marginal
5 value of energy would be more than offset by reductions
6 in fixed costs; right? That is how that sort of
7 equation works?

8 A. I think we have two different
9 marginal costs. We are talking about system marginal
10 cost of energy; right?

11 Q. Yes.

12 A. And the calculation of the
13 cost/benefit ratio of Bruce will have to take into
14 account the marginal costs of running Bruce in all
15 ours, whether it is the marginal plant or not.

16 Q. Understood. But if you do that
17 second analysis, the cost/benefit analysis, and you
18 determine cheaper not do it or at least not right
19 now --

20 A. That is your hypothesis.

21 Q. That's the hypothetical, all right?

22 A. I think that would --

23 Q. Then that means overall costs are
24 low. So you have agreed to that?

25 A. I have agreed that if a cost/benefit

1 analysis shows costs to be lower, then costs are lower.
2 But I don't see that's -- that is a self-evident
3 statement.

4 Q. But however, if nuclear is at the
5 margin in your current plan and it is less so when you
6 close Bruce isn't the effect that your system
7 incremental costs would thereby increase?

8 A. System incremental costs, as I've
9 said, would be higher during the hours when nuclear
10 plant would have been on the margin and in the new
11 scenario would no longer be on the margin.

12 Q. And the effect of that, isn't it,
13 that things like additional demand management, their
14 value goes up during that period; isn't that correct?

15 A. In that circumstance, yes.

16 Q. Is it fair to say that information
17 with respect to what is going to happen to Bruce "A",
18 the decision if you like, is -- what is a good range?
19 In fact, maybe you can tell me. When can we expect to
20 have that information, what is going to happen to Bruce
21 "A"?

22 A. I don't know. The schedule for the
23 process I believe is one of the matters that is under
24 review at this time.

25 Q. It is not going to be the next few

1 weeks, is it.

2 A. No.

3 Q. Okay. In the meantime, let's say it
4 takes a year. Whether it is a year, whether it is six
5 months or whether it is 18 months it doesn't matter.
6 Say it takes a year.

7 In the meantime, how do you as planners
8 make decisions about generation planning over that
9 period of time, the next 10, 15 years? How do you make
10 those decisions if you don't know whether that 3,000
11 megawatts is there or not?

12 A. Well, the decision that is being
13 addressed is not necessarily whether the 3,000
14 megawatts is there or not. It covers a range of
15 possibilities. And you have just mentioned the two
16 extremes. All right?

17 So there are possibilities in between
18 of -- I believe your own capacity picture you showed us
19 was not an early retirement of Bruce; it was more of a
20 mothball until the end of the capacity surplus
21 scenario, all right? So there are various scenarios
22 for faster or slower, partial or complete
23 rehabilitation of the project.

24 So yes, there are some uncertainties
25 regarding that, and that is one of the many factors

1 that we have to keep in the back of our minds as we
2 proceed with decision-making.

3 Q. I guess if you are talking about a
4 small amount of capacity I could understand you sort of
5 keep it in your mind that you might have it, you might
6 not have it. But with this much capacity surely it is
7 fundamentally different planning. You have got it or
8 you don't have it; isn't that right?

9 A. There is a potential large effect on
10 planning, yes.

11 Q. Now, all of your planning currently
12 assumes that you are going to have it; right?

13 A. The base assumption is that it will
14 be there.

15 Q. Is it fair to say that if the
16 decision is to close it then you have to redo your
17 planning, substantially redo your planning? It is not
18 a question of a little adjustment here or there. You
19 have to do it again; right?

20 A. There will be substantial effects on
21 plans for other resources.

22 Q. This Board I guess is in a similarly
23 difficult position, I presume, not knowing whether it
24 is in or out.

25 As an expert planner can you give the

1 Board any assistance as to how it should approach the
2 decisions before it given the uncertainty about Bruce
3 "A"?

4 [1:55 p.m.]

5 A. I think the Board has some evidence
6 from Panel 9 on the status of Bruce "A", and they would
7 to weigh whatever evidence that they have.

8 I'm not in a position to advise the Board
9 has to do its business, but we are making available the
10 information we have and that has been made available
11 and it is continuing to be made available.

12 Q. We have already established that the
13 Bruce "A" decision has implication with respect to
14 surplus and avoided cost; correct?

15 A. Yes.

16 Q. It has implications with respect to
17 other major issues in this hearing; is that fair?

18 A. It has implications with respect to a
19 variety of matters, yes.

20 Q. Could it affect your estimates of
21 emission rates or emission totals for SOx, NOx, CO(2),
22 and things like that?

23 A. Yes.

24 Q. Could it affect of the timing of
25 decisions to proceed with hydraulic facilities?

1 A. It could affect those decisions, yes.

2 Q. And in fact, that discussion we had
3 this morning about whether your hydraulic is required
4 in 2007 or 2000 or what the reasons for it are, that's
5 not really the same discussion if you don't have Bruce
6 "A", right? You need it in eight or nine years;
7 correct?

8 A. It affects the degree of capacity
9 surplus and the need for all other resources.

10 Q. I presume that the Bruce "A" decision
11 could affect of the timing of major new supply?

12 A. I have been following along these
13 decisions and the answers that I have been giving, it
14 may be on an incorrect basis. I have been giving it on
15 the basis of whether or not all of Bruce is there or
16 none of Bruce is there.

17 As I have pointed out, the Bruce decision
18 may very well end up being somewhere in the middle
19 ground of how fast do you fix it or how much of it do
20 you fix. So in the sense of a very large decision
21 which is the extreme possibility from this, yes, it
22 does have effects on the need date for other major
23 supply options.

24 Q. Right now you don't know. Somewhere
25 in that range from 3,000 megawatts to zero megawatts is

1 what you are going to have from Bruce. That is all you
2 know right now; right?

3 A. No.

4 Q. Okay. You know something more than
5 that?

6 A. For instance, in the documents that
7 we have produced in the ranking of certain of surplus
8 management options, we have looked at giving up Bruce
9 as one of the surplus management options and it ranks
10 lower than mothballing Lakeview, for instance.

11 So the information that we have at the
12 moment tends to support the base assumption of the
13 continuation of Bruce and that being our base
14 assumption.

15 Q. Mr. Snelson, isn't it true that you
16 presented that to your own Board of Directors and they
17 rejected and said, no, go do a proper job; isn't that
18 exactly right?

19 A. No.

20 THE CHAIRMAN: I think that's again a
21 little bit of editorializing. Do a different kind of
22 job, would that be a fairer way of putting it?

23 MR. SHEPHERD: Or more thorough job, yes.

24 Q. Let me put it another way. Weren't
25 you instructed by the board of directors of Ontario

1 hydro to go do a more detailed review of Bruce "A"?

2 MR. SNELSON: A. The board of directors
3 at its October meeting directed that a review of Bruce
4 "A" be done.

5 Q. Okay. If, in the extreme examples of
6 Bruce "A", such as not having it any more at all, that
7 might affect your choice of new supply, right, in the
8 sense that it might affect whether you have more fossil
9 because of emissions concerns, that sort of thing;
10 isn't that right?

11 A. The change of 3,000 megawatts in the
12 nuclear part of the system would have a substantial
13 effect on the other decisions.

14 Q. Okay. You have a group right now
15 trying to figure out what to do about environmental
16 controls for fossil, right? What's it called, a new
17 emissions strategy; is that right?

18 A. Their a group reviewing the policy on
19 air emissions, yes, and degree of control.

20 Q. And that's going to include things
21 like when to put in the flue gas desulphurization and
22 CPM, and all those sorts of things; right?

23 A. Yes. We have given a rather one
24 sided picture in terms of the projections we have shown
25 here, which is what does the program look like if we

1 make very stiff cuts in the environmental control
2 program, and I think that's one side of what is being
3 looked at. The other side is of continuing with more
4 controls than we have shown in our scenario that would
5 reduce emissions from the levels that we have
6 indicated.

7 Q. The first side, the lower cost higher
8 emissions approach, that's what you base your avoided
9 costs on; right?

10 A. It is consistent with that, yes.

11 Q. Yes. And it's correct, isn't it,
12 that if you were to close Bruce for any significant
13 period of time, then that's going to have an effect on
14 your emissions and then presumably on that new emission
15 strategy; right?

16 A. I think you have made the point
17 several times that if in the extreme case, if Bruce was
18 to be closed it affects a lot of other aspects of
19 planning, and we have been through that point
20 several times.

21 Q. So if you mothball one unit of Bruce,
22 that doesn't affect fossil emissions?

23 A. No, I didn't say that. But obviously
24 these things are matters which small changes have
25 relatively small effects and large changes have large

1 effects. It is as simple as that.

2 Q. All right. You currently have a
3 transmission problem west of Toronto, right,
4 transmission limitations west of Toronto, FIGTA?

5 A. I believe that was Dr. Macedo's
6 evidence on Panel 7.

7 Q. That's still the case?

8 A. I don't know of any change since his
9 evidence in that regard.

10 Q. The closure of Bruce alleviates that
11 problem; right?

12 A. I couldn't be definitive as to
13 whether in total it relieves transmission problems or
14 increases transmission problems.

15 It may have a beneficial effect on that
16 particular interface, it may have some other effects
17 somewhere else. I haven't studied it.

18 Q. Is it fair to say, Mr. Snelson, that
19 in order to do proper planning of your system, a
20 decision what to do with Bruce "A", close it, open it,
21 leave it open, half and half, temporary, permanent,
22 whatever, that from a proper planning point of view,
23 that involves consideration of all of those issues we
24 have just discussed; isn't that correct?

25 A. There are aspects of overall planning

1 of the system where you have to look at the bigger
2 picture, yes.

3 Q. In fact, right now you are before
4 this Board with an approval for 14- to 1,800 megawatts,
5 that's all that is on the table right now; right?
6 That's actually half of the impact of Bruce "A";
7 correct?

8 A. In terms of capacity, yes.

9 Q. And it is even less than half of
10 Bruce "A" in terms of energy; isn't it?

11 A. That's correct.

12 Q. Let me go on to a different subject.

13 Sorry, Bruce "A" is about 10 per cent of
14 your generating capacity; right, in that range?

15 A. Yes.

16 Q. It sounds to me from this discussion,
17 I don't want to overstate it, I just want to get a
18 sense from you whether this is right, that a decision
19 like what to do about Bruce "A" is almost like doing a
20 whole demand/supply plan: You should be fitting all
21 the pieces together in the same way as you do any other
22 demand/supply plan for such a big number; isn't that
23 right?

24 A. I don't think it's quite as large a
25 task as a whole demand/supply plan.

1 Q. All right. Let me turn to
2 non-utility generation. Well, no. Actually before I
3 do that, maybe you could...

4 In Exhibit 796 there is a number of
5 places where you talk about the environmental impacts
6 associated with the current changes. Aside from the
7 places where you specifically deal with the environment
8 here, is it fair to say that your evidence with respect
9 to the environmental impacts of the Demand/Supply Plan
10 before this Board is as contained in Exhibit 4 and in
11 the subsequent oral evidence and fillings that we have
12 seen so far, there is nothing new beyond what is there?

13 A. I am sorry, can you repeat that
14 question? I thought the question was going to be about
15 Exhibit 796 and then I thought I heard a question about
16 other elements.

17 Q. It is about 796. Exhibit 796 doesn't
18 have an environmental analysis, it doesn't say here is
19 our 35 pages of analysis of what our plans do to the
20 environment, as you had in the original Demand/Supply
21 Plan. It has a few notations of changes.

22 A. That is correct.

23 Q. So aside from those changes, what you
24 have said about your original DSP and about the Update
25 we treat that as being still true. That's still the

1 environmental impacts of your plan; correct?

2 A. The new information on environmental
3 impacts that we have, we have given in Exhibit 796.

4 Q. You haven't done a new comprehensive
5 review of the environmental implications of your
6 generation plans, have you?

7 A. Not in the same way as we did for the
8 original Exhibit 3 and prior to Panel 10 evidence based
9 upon Exhibit 452.

10 Q. And there was a comment I think in
11 the September 19th memo which is, what, attachment B,
12 you recall the comment to the effect something like we
13 haven't looked at the environmental, legal and other
14 implications of this stuff yet, and it was intended
15 that that would done later; do you recall that?

16 I will find it if you want. Bottom of
17 the second page of the Executive Summary.

18 A. Yes, I think I just got there.

19 Q. Last three lines.

20 Additional analysis of environmental
21 leadership, legal and hearing
22 implications... will be required in the
23 coming months.

24 Okay?

25 A. Yes.

1 Q. And you have done some of that but
2 you haven't completed that analysis of the
3 environmental implications of all these changes; have
4 you?

5 A. There was sufficient additional work
6 done that the Board felt able to make the decisions
7 they did make in October.

8 Q. Yes?

9 A. And that work primarily consisted of
10 the consideration of the air emissions which were
11 significantly changing and the environmental controls
12 of air emissions that were being considered, and the
13 cuts to environmental controls.

14 Essentially what has happened with
15 environmental controls is that in September there was a
16 proposal that very large cuts be made, and in October
17 when it came to decisions then they left that to some
18 degree open by accepting a cut in the capital program
19 of 7 to 10 billion dollars, the difference being due to
20 whether in fact the cuts in the environmental controls
21 do in fact go ahead, and then they set up a process to
22 look into that some more.

23 Q. That only deals with air emissions?

24 A. That deals with air emissions which
25 were seen as being the significant environmental change

1 that was being introduced.

2 Q. All right. But that's not the only
3 environmental issue you dealt with in exhibit - what
4 was it - 6? Exhibit 4? The environmental analysis?
5 Exhibits 4; right?

6 A. That is correct. There were many
7 environmental implications that were considered, yes.

8 Q. Okay. And you have done no analysis
9 of the impacts on those environmental issues of your
10 changes, have you?

11 A. We have not done a new comprehensive
12 environmental analysis in that form. We do believe
13 that the environmental impacts of individual options
14 have been well described on previous panels, they
15 remain the same. This plan that we have in front of us
16 at the moment is, if anything, cutting out things from
17 the previous plans. We felt that that was sufficient.

18 Q. So is that something like it's the
19 same as then only less so? Is that what you are
20 saying?

21 A. As regards the impact of plans that
22 have been cut back, yes. And the area that people were
23 unsure of was the effect on air emissions, of making
24 large cuts to the capital program for air emissions
25 based upon projections of lower use and lower need

1 while still keeping emissions low, and people were
2 uncomfortable with that, sufficiently uncomfortable
3 with that that they have initiated this further review
4 to reconsider.

5 Q. One of the environmental issues that
6 has been discussed in this hearing is the question of -
7 I guess the easiest way I to describe is - monetization
8 of environmental externalities. Have there been
9 changes at Ontario Hydro in that regard since you last
10 gave evidence in Panel 10?

11 A. No, there have not.

12 Q. Is there a committee or task force of
13 some sort set up at Ontario Hydro to deal with the
14 question of externalities?

15 A. There is a committee looking at some
16 of the aspects of that, yes.

17 Q. That's headed up by Mitch Rothman?

18 A. Yes.

19 Q. Can you give us an update of that
20 status of that review? Is it at a point where you can
21 tell us something about it or is it just too early?

22 A. It's too early.

23 Q. Can you tell us something about the
24 process or the mandate of that review?

25 MR. B. CAMPBELL: Mr. Chairman, aren't we

1 just getting into the area? This is a matter, my
2 recollection is, when it was talked about at the time,
3 this would be a matter in which, like many others,
4 Ontario Hydro keeps current, does work, it's continuing
5 to do work. I am not sure why an inquiry into the
6 ongoing day to day kind of business that Hydro does
7 needs to be dealt with in the context of this panel.

8 MR. SHEPHERD: The reason I was asking
9 about the mandate, Mr. Chairman, is that it sounded to
10 me like we were talking about a task force of some sort
11 intending to look at what is a fairly fundamental
12 issue, and they could make recommendations that would
13 dramatically change how Hydro did things. If that's
14 going to happen, I think we should know now rather than
15 later.

16 [2:17 p.m.]

17 THE CHAIRMAN: Well, I think if it
18 happens they will let us know, and until it does happen
19 we have to take the evidence we now have.

20 MR. SHEPHERD: Q. In the same way as if
21 a decision on Bruce "A" could have a substantial effect
22 on your planning is it correct that a decision to
23 include --

24 THE CHAIRMAN: I don't think -- if it is
25 externalities would have an effect on the planning your

1 question -- that question doesn't have to be answered.

2 MR. SHEPHERD: Mr. Chairman, can I ask
3 you why that is?

4 THE CHAIRMAN: Because the issue of
5 externalities has been dealt with.

6 I would think the answer was
7 self-evident. Of course, it would have an effect.
8 Similarly, any decision, whatever the decision is, if
9 it is different from continuing Bruce "A" in its
10 present form it will also have an effect. I mean, that
11 is also self-evident.

12 MR. SHEPHERD: I guess, Mr. Chairman, I
13 accept that, of course. I won't explore those things
14 anymore.

15 It does raise a question for me which I
16 would like to put on the record although I am not
17 necessarily asking you to answer it right now.

18 One of the potential arguments that
19 parties could make in this hearing is that because of
20 the current circumstances at Hydro with certain
21 uncertainties too large -- or certain very large
22 uncertainties it is inappropriate for this Board to
23 give approvals to Ontario Hydro because the information
24 before it is too uncertain.

25 Am I being unreasonable in expecting that

1 that sort of argument is a legitimate argument in this
2 hearing. Not necessarily one you would accept, but one
3 that we could make?

4 THE CHAIRMAN: No, I think that is
5 certainly an argument that can be made. But the issue
6 of externalities is one that has been thoroughly gone
7 into in the earlier panels.

8 MR. SHEPHERD: I wasn't going to ask, Mr.
9 Chairman, about whether externalities are a good idea
10 or bad idea. That is something that we will debate. I
11 was merely trying to figure out whether there was a big
12 imminent change at Hydro on that issue because that
13 would then raise the same question as Bruce "A".

14 THE CHAIRMAN: I think the responsibility
15 about changes and position of the proponent on any of
16 these matters is something that the proponent has
17 control of. When they want to bring it to the
18 attention of the Board they can do so. Until that has
19 been done we have got to assume that nothing has
20 changed as far as their position is.

21 MR. SHEPHERD: Well, Mr. Chairman, they
22 weren't going to tell you that there could be 3,000
23 megawatts in or out from Bruce "A". I had to ask about
24 it.

25 MR. B. CAMPBELL: Excuse me, Mr.

1 Chairman. The matter of whether or not there is a
2 review being conducted of Bruce "A" was explicitly
3 addressed by this panel in its filed material and in
4 its evidence in chief.

5 THE CHAIRMAN: That's right.

6 MR. B. CAMPBELL: It was absolutely
7 clear.

8 I think my friend has amply demonstrated,
9 given the uncertainty and the direction of risk that he
10 has pointed out, why the approvals are required. It is
11 excellent for that purpose and I appreciate his
12 cross-examination, but to say that we were not going to
13 bring to your attention that Bruce "A" may not be
14 there, that there was a review being done of Bruce "A"
15 is in my submission simply entirely incorrect.

16 MR. SHEPHERD: Let me move on to a new
17 subject.

18 Q. Mr. Snelson, I think, could you look
19 at attachment F, please, to Exhibit 796. Do you have
20 it?

21 MR. SNELSON: A. Yes.

22 Q. Is this your current NUG forecast for
23 the year 2000?

24 A. This was the information current as
25 of the end of October.

1 Q. That is not what I asked you. I
2 asked you, is it your current NUG forecast?

3 A. Well, clearly we have said in our
4 direct evidence that it does not incorporate any
5 changes that may come about as a result of the December
6 decisions to put a hold on and reconsider some of the
7 NUGs.

8 I have not seen a forecast, and I don't
9 believe one is being made, of what might be the outcome
10 of that process. So we know that there is a process in
11 place that may well change these numbers, but I don't
12 know of any other changes to it.

13 THE CHAIRMAN: Just to clarify my
14 position, is the data in attachment F consistent with
15 the load forecast in attachment C?

16 MR. BURKE: The load forecast only
17 concerns itself with the load displacement non-utility
18 generation, and this attachment refers purely to
19 purchased non-utility generation.

20 MR. SNELSON: Attachment F though is, I
21 believe, consistent with attachment J, which is the
22 load to capacity balance that Mr. Dalziel has
23 discussed.

24 THE CHAIRMAN: Right. Thank you.

25 MR. SHEPHERD: Q. So then, to the extent

1 that your decision in December to put a number of NUGs
2 on hold, I guess is the fairest way of describing it,
3 to the extent that that changes your projections for
4 non-utility generation it also changes the projections
5 you have filed of surplus and deficit; correct?

6 MR. SNELSON: A. Yes.

7 Q. You don't know what those numbers are
8 as of yet?

9 A. As I say, I don't believe any
10 estimate has been made, certainly not one that I know
11 of of what the effect might be.

12 THE CHAIRMAN: Putting NUGs on hold, is
13 my recollection correct that they are put on hold in
14 order to give further consideration; it doesn't mean
15 that they are not going to be proceeded with?

16 MR. SNELSON: That is quite correct.

17 THE CHAIRMAN: It is to provide a
18 breathing space in order to consider what the policy is
19 going to be; is that correct?

20 MR. SNELSON: That is correct.

21 MR. SHEPHERD: Q. Didn't you also decide
22 not to take anymore applications for new projects?

23 MR. SNELSON: A. That, I believe, was
24 already in place for projects greater than five
25 megawatts.

1 Q. And now it is in place for under five
2 megawatts; correct?

3 A. I don't know that is a fact, but it
4 may be.

5 Q. I wonder if you could find that out
6 for us?

7 A. We can undertake to find that out.

8 THE CHAIRMAN: That will be No. 2. 940,
9 No. 2.

10 THE REGISTRAR: 940.2, yes.

11 ---UNDERTAKING NO. 940.2: Ontario Hydro undertakes to
12 determine status of any decision to
13 put on hold NUG projects of less
than five megawatts.

14 MR. SHEPHERD: Q. The real undertaking I
15 was going to get - and I mean, if this is going to be a
16 matter of some months then don't bother, but if it is
17 something that is being worked on now perhaps I could
18 get it - is to get these numbers corrected for that
19 decision. Is that something you could --

20 MR. SNELSON: A. For the December
21 decision?

22 Q. Yes. Is that something that you
23 could do?

24 A. That is not something I could
25 undertake to do in the near future. It will depend

1 upon how that process, that whole process resolves
2 itself.

3 Q. You don't know how long it is going
4 to take?

5 A. I have indicated that it is likely to
6 be of the order of two months.

7 Q. All right. The 2,284 megawatts that
8 you show to the end of 1996 in this table that is all
9 projects currently known to Hydro; correct?

10 A. I would expect that to within at
11 least 25 megawatts you are correct.

12 Q. I'm sorry I am taking so much time,
13 Mr. Chairman, but I am cutting out lots of questions.
14 So it is well spent.

15 Let me go to load displacement
16 non-utility generation then, and perhaps you could turn
17 to yesterday's transcript, page 30,431, and this is
18 you, Mr. Snelson. You talk about discontinuing your
19 financial assistance plan, and you comment that that is
20 a response to an OEB recommendation to do that.

21 That OEB recommendation was in HR 19,
22 wasn't it?

23 A. I'm just looking through the
24 recommendation, but my understanding was that it was
25 HR 21.

1 Q. Which would be 1992, as opposed to
2 HR 19 which was 1990?

3 A. Yes. And if my briefing notes are
4 correct then the recommendation of the OEB in HR 21,
5 which was the report on 1993 rates, and I am quoting
6 Recommendation 4.2, was that:

7 The Board recommends that no further
8 financial assistance be given to the
9 development of any new non-utility
10 generation project during this period of
11 oversupply, except when required for
12 small environmentally and social
13 preferred projects.

14 Q. Okay. In your direct evidence you
15 talk about the situation with the municipal utilities.
16 Who was that? Was that you, Mr. Shalaby?

17 A. With respect to non-utility
18 generation load displacement?

19 Q. Yes.

20 A. I think that was probably me, too.

21 Q. Oh, that was you, too? You're right.
22 The current proposals by the municipals would add some
23 several hundred megawatts of generation, isn't that
24 correct - capacity?

25 A. That is my understanding.

1 Q. This is a type of natural load
2 displacement cogeneration; correct?

3 A. One can think of it as such. In this
4 case, one is actually talking about -- and it depends
5 on whether one sees municipal utilities as being
6 utilities or buying their generation or generating it
7 themselves from some other source for sale to ultimate
8 users or whether you think upon them as being a bulk
9 electricity customer generating his own electricity.
10 So you can look upon it either way.

11 Q. But what I am asking is, Hydro has
12 three categories: natural load displacement, program-
13 driven load displacement, and purchases. Which one is
14 it in?

15 THE CHAIRMAN: Just make sure that I
16 understand what "it" is.

17 MR. SHEPHERD: "It" is the proposals for
18 several hundred megawatts of additional capacity to be
19 built by municipals.

20 THE CHAIRMAN: You are talking about the
21 situations situation like Kingston, Sudbury, Windsor,
22 that sort of situation?

23 MR. SHEPHERD: Sudbury wasn't a
24 municipal. But yes, Kingston, Windsor, Toronto,
25 Sarnia.

1 THE CHAIRMAN: Okay.

2 MR. BURKE: I don't know if this
3 clarifies it for you, Mr. Shepherd, but in determining
4 the basic load forecast the amount that we have called
5 load displacement NUGs in our tables refers to
6 industrial non-utility generation.

7 In the process of going from total
8 electricity demand in Ontario to the basic we have
9 another category historically for adjusting to
10 Statistics Canada data that includes the generation of
11 utilities.

12 So it hasn't, up to now, been included in
13 the numbers we call load displacement non-utility
14 generation, but it is part of the adjustment that is
15 made historically between the provincial demand for
16 electricity and the basic load.

17 You will find reference to that in
18 chapter 1 where I give the differences, I think it is
19 on page 22, between demand on Ontario Hydro and demand
20 in the Province. The item is called "Electricity Sold
21 in Ontario by Entities Other Than Ontario Hydro".

22 So historically we have taken the
23 generation by electric utilities into account. Up to
24 now a forecast of a change in that amount has not been
25 included in our load forecast.

1 Q. So the bottom line is, whatever this
2 number is it isn't in any of your numbers in this
3 filing; right?

4 A. A forecast of future...

5 Q. MUGs they are called, "municipal
6 utility generation".

7 A. Whatever that is.

8 Q. It is their term, too.

9 A. I see. Is not included in this load
10 forecast, no.

11 Q. Mr. Dalziel, it is not included in
12 your balance either, is it.

13 MR. DALZIEL: A. No.

14 Q. Okay.

15 A. Or I should say, that is correct.

16 Q. Obviously, Mr. Snelson, hence the
17 need for a task force to deal with it, because that is
18 a lot of generation and you have already got more than
19 enough; right?

20 MR. SNELSON: A. There is a need for a
21 task force because the issues around it are complex,
22 and that is -- I addressed that in my direct evidence.
23 I don't think I have anything to add to what I said in
24 direct.

25 Q. Well, let me talk about load

1 displacement by customers for a second. There was a
2 time when you encouraged self-generation by customers,
3 correct, but you don't do that any more; you discourage
4 it, if you like?

5 A. Yes.

6 Q. Do I understand your evidence to be
7 that you really can't prevent customers from
8 self-generating. If it is cheaper, they can do it,
9 right, if they feel that it is appropriate?

10 A. Yes, provided that when they are
11 connecting to the system that the normal requirements
12 for parallel operation and so on are met.

13 [2:35 p.m.]

14 Q. Well, is there some sense in which
15 you can make interconnect requirements and similar
16 things tough enough that it would be hard for customers
17 to self generate?

18 A. I don't think it would be justifiable
19 to make the interconnection requirements any more
20 stringent than was required to protect the system.

21 Q. Okay. So it's a theoretical
22 possibility but it wouldn't be appropriate; is that
23 fair?

24 A. I have accepted that customers can
25 generate their own power if they wish and meet the

1 normal requirements of the system.

2 Q. Now, if you look at attachment E,
3 please. We are back to that page 2. As I read this,
4 and correct me if I am wrong, as I read this your
5 expectation is that by 1995 commercial customers will
6 be paying in 1991 dollars 7.59 cents a kilowatthour on
7 average, and large industrial customers will be paying,
8 again in 1991 dollars, 5.66 cents per kilowatthour.

9 Is it correct that on those sorts of
10 numbers there is a quite a large number of customers
11 for whom self generation would be a cheaper option?

12 MR. BURKE: A. Yes.

13 Q. Where self generation is a cheaper
14 option for a business, whether industrial or
15 commercial, is it correct to say that implementing it
16 improves that business' competitiveness?

17 A. Well, I think that would depend a lot
18 on the how the business -- they were able to finance
19 things from their own perspective. I really couldn't
20 comment on that.

21 Q. It's not simply getting expenses down
22 means you are more competitive; there is more to it
23 than that, is that fair?

24 A. Yes. And it depends on whether it
25 turned out to be a good decision.

1 Q. Yes, I guess.

2 Take a look at attachment - I think this
3 is for you, Mr. Snelson - attachment D, this is the
4 system incremental cost, at page 8. I want to check
5 one other thing.

6 This example here on page 8 is of
7 somebody who proposes to cogenerate to displace
8 purchases from Ontario Hydro. I guess my initial
9 question is, why would you be calculating the avoided
10 cost of such a project?

11 MR. SNELSON: A. This may seem like a
12 long time to answer a simple question, and the quick
13 answer is that I don't know why that example is in
14 there. I was trying to be more helpful than that and
15 to check back whether this particular example is a
16 carry-on from previous additions of the system
17 incremental values.

18 Q. It was in the March 1992 SICS as
19 well.

20 A. Okay, I couldn't quickly find them to
21 check that point, but I suspect that it's a carry-on
22 from that previous example.

23 Q. In fact, now that you don't have any
24 financial incentives to load displacement projects,
25 typically there wouldn't be any reason to calculate

1 avoided costs for such a project; right?

2 A. That is correct, unless that
3 calculation was being done to see whether the avoided
4 cost had changed to the point where there was -- that
5 that policy should be changed. If avoided costs rise,
6 then there may come some point at which we wish to go
7 back to encouraging self generation.

8 Q. Oh, clearly, clearly. But we are
9 talking here about something that's like 3 cents or
10 something, right, and the decision-maker, who is
11 deciding on the project, that owner of the factory,
12 they don't care about that number at all; right?

13 A. That's correct.

14 Q. They care about whatever Hydro is
15 charging them.

16 A. That is correct.

17 Q. Okay. It sounds very much like
18 demand management. I mean, you have the same sort of
19 effect in a demand management situation; right?

20 A. I'm sorry, in what respect are we
21 discussing it to being similar to demand management?

22 Q. You can calculate the avoided costs
23 for a demand management initiative by a customer.

24 A. Yes.

25 Q. But that calculation of the avoided

1 costs, which on today's numbers might well be much less
2 than the retail prices, is not relevant to your
3 customer, is it? Only the retail prices are relevant
4 to your customer?

5 A. From the customer perspective for
6 both non-utility generation and demand management, then
7 the cost of electricity is the rate that they are
8 charged rather than Ontario Hydro's avoided cost.

9 With respect to demand management, of
10 course, we are still conducting demand management
11 programs and the avoided costs to Ontario Hydro of that
12 demand management program is very relevant to the
13 design of the demand management program, which is
14 something that Mr. Shalaby would speak to.

15 Q. Yes, understood.

16 I guess the difference between those
17 two - and I don't know who it is that answers this -
18 the difference between those two is that in the case of
19 the person displacing load, they have a relatively
20 simple calculation. They would be paying this much to
21 the utility, it's costing this much. If the first is
22 greater than the second, they are fine, subject to all
23 of their financial considerations. Whereas in the case
24 of demand management, if they don't get that result,
25 you might still be giving them an incentive to do it

1 anyway because of the avoided cost -- or because of the
2 total customer cost calculation; correct?

3 MR. SHALABY: A. For the sake of saying
4 something on the record today, they let me answer the
5 question. [Laughter]

6 Yes. [Laughter]

7 Q. I like your answer. That's enough
8 for you, Mr. Shalaby. [Laughter]

9 Is it correct, Mr. Snelson, that since
10 the December 17th announcement a lot of the load
11 displacement projects that Hydro was aware of that were
12 being planned have either been cancelled or suspended
13 even though they are not really caught up in your new
14 freeze; is that correct?

15 MR. SNELSON: A. You are saying since
16 December 17th?

17 Q. Yes.

18 A. I have no information on load
19 displacement NUGs between December 17th and now.

20 Q. Okay. Has Ontario Hydro ever used --
21 No. I have got to make sure I focus on what you
22 have filed.

23 Let's go to the natural NUG forecast, and
24 that is attachment C which I assume is page 107, Mr.
25 Burke.

1 MR. BURKE: A. Yes.

2 Q. You, in fact, said in your oral
3 evidence on page 30425 that the effect of this is by
4 the year 2000 your forecast is up about 150 megawatts;
5 right?

6 A. I said relative to last year.

7 Q. Relative to last year?

8 A. Not relative to the starting point.

9 Q. Relative to the starting point it's
10 up how much?

11 A. About 300 megawatts, I think.

12 Q. I am going to ask you to look at
13 Exhibit 938, the second page, and this is the thermal
14 component of that chart graphed out. Obviously the
15 Hydro component stays the same; right? That's
16 unchanged.

17 A. Yes.

18 Q. This is the thermal component and
19 will you accept -- no, it isn't. Sorry, it's the
20 total. That's the total, I'm sorry.

21 The column that says total gigawatthours
22 here, plotted out here, will you accept subject to the
23 check that that is a fair representation of your
24 forecast?

25 A. Yes, subject to your correction that

1 in fact not the natural thermal but the total. But as
2 the hydraulic is flat, the general profile would be the
3 same.

4 Q. Okay. And this shows that natural
5 load displacement thermal generation -- sorry, load
6 displacement generation, increases for about six years
7 from now and then starts to drop and drops throughout
8 the remainder of the planning period; correct?

9 A. Yes, this is energy generation.

10 Q. Of course.

11 A. Not capacity.

12 Q. Understood. I will get to that.

13 If you take a look at page 106 of
14 attachment C, you explain why there is a drop after
15 1998, and that's in the second last paragraph.
16 Describe the price increase -- sorry, the increase is
17 being driven by higher prices and then you say that the
18 price moderation will reduce self generation. And I
19 understand you to mean here not that people will shut
20 down their thermal units, but they will simply use them
21 less; correct?

22 A. Yes, that's the implication.

23 Q. Okay. So then I went to attachment
24 E, which is your energy price trends forecast, now this
25 is all just industrial; right?

1 A. Yes.

2 Q. Okay. So then if we want to look at
3 price impacts, we should look at the industrial
4 electricity prices; right?

5 A. Yes.

6 Q. And that's on page 51 of attachment
7 E. You confirm this is the right numbers to look at?

8 A. Well, that's certainly the current
9 industrial electricity price projection.

10 Q. Excellent, excellent. So then if you
11 look at page 3 of Exhibit 938, and from that page
12 delete in the title the word "thermal", you see that
13 what this does is simply superimpose the real
14 electricity prices over top of your estimate of natural
15 NUGs, and will you accept, subject to check, that that
16 chart of real electricity prices fairly represents the
17 page 51 data?

18 A. Yes.

19 Q. Okay. Now, I guess I would have
20 expected the pattern of prices to go roughly the same
21 way as the generation and it doesn't. And my question
22 is: Why wouldn't the customer who choose to self
23 generate in 1994 when the price is 5.6 cents a
24 kilowatthour, not still want to be self generating at
25 least as much in 2007 at 5.66 cents a kilowatthour?

1 A. Well, the answer is that because we
2 needed to prepare a forecast for the long-term, we
3 sought the assistance of an equation, which is given at
4 the top of page 106. And it should not be surprising
5 that in an equation that looks at the attractiveness of
6 non-utility generation, it's not just the price of
7 electricity that matters; it's the price of natural gas
8 that matters, and as in the case actually that we were
9 looking at for fuel switching with Mr. Rogers and in
10 direct evidence, the absolute price levels perhaps are
11 not the greatest indication. It matters how things are
12 changing because in many ways the rapid increase and
13 interest in non-utility generation, some of these
14 decisions could have been made earlier by customers had
15 they wanted to. The price differential is not new.

16 So, we were looking for an equation to
17 understand how customers respond to price differences.
18 And what this equation suggests is they are sensitive
19 to gas price changes, as well as electricity price
20 changes, and in the period beyond 1995 in this
21 forecast, gas prices are increasing much more rapidly
22 than electricity prices. And you have the result that
23 while people would have installed the capacity if the
24 gas price forecast is correct and the behavioural
25 relationship represented by the equation is correct,

1 they would choose not to use it so much.

2 Now, the expectations of people in
3 installing the capacity may not be that our gas price
4 forecast is what happens, but we do have our own gas
5 price forecast and we believe it to be correct, and so
6 we are planning on the basis of it and the equation
7 reflects the use of it.

8 Q. Is it fair to say then that if we had
9 a similar representation of your fuel switching
10 projections, that it would similarly go up to 1998 and
11 then tail off to a level below the current levels?

12 A. You don't go back and forth on those
13 decisions like you can in running a generator. But the
14 rate of conversion from electricity to gas is certainly
15 going to be strongly weighted to the front end of the
16 period and slow down beyond the year 2000. And I think
17 that issue is brought out in the residential end use
18 space heating forecast in chapter 3 of the document,
19 that beyond the year 2000 the incentive diminishes,
20 but --

21 Q. But that would be like in the fuel
22 switching situation somebody saying, okay, I will put
23 in the gas furnace, the prices are lower, and then 10
24 years from now saying, better get out the old space
25 heater because electricity is getting cheaper now.

1 That's a similar situation; right?

2 A. Not really, because the situations
3 for fueling switches are ones where people switch from
4 central electric to central gas and they wouldn't have
5 the option to go back and they will have to reconsider
6 the economics and maybe the price differences wouldn't
7 be sufficient to switch them back.

8 In the case of generators we are talking
9 about throttling up or throttling down.

10 Now whether people choose to operate this
11 way, I don't know, the situation hasn't really happened
12 before, except that historically there is precedent --
13 I should say the situation that might arise in '97
14 hasn't happened before at those price levels. But
15 historically the reason this equation works and fits is
16 that in the period in which natural gas prices rose
17 between 1975 and 1984, non-utility generation was
18 falling.

19 [2:58 p.m.]

20 So in other words, the capacity existed,
21 but people chose not to use it as much. And that is
22 why this equation fits. Otherwise, it wouldn't fit.

23 We are extrapolating it to the future
24 that when gas prices rise again that people will use
25 less -- use their generation less even though the

1 capacity exists.

2 That may not be true. Maybe at these
3 price levels they will continue on generating. But
4 this was the best information I had to work with, and
5 this was the best way I could think of of projecting
6 into the long-term this marketplace.

7 Q. One of the things you said to Mr.
8 Rogers, as I understood it, was that you anticipate --
9 that the key to fuel switching is the price stability.
10 There has always been a price advantage, but as the
11 price stabilizes you see more and more people making
12 the decision to switch; right?

13 A. I think -- you know, maybe
14 stabilizing is part of it, but I think it is a strong
15 expectation that prices will maintain the differential
16 for a long period of time.

17 Q. Okay. And in the '80s people's
18 expectations were that -- at least, what you have
19 assumed is that people's expectations were that they
20 couldn't rely on the differential remaining for very
21 long; right?

22 A. That's correct.

23 Q. And your current projection is that
24 there will be a very long-term stable flow of prices
25 and as a result you get more fuel switching?

1 A. Mm-hmm.

2 Q. And you will never get up to even
3 close to the peaks of the '80s. And my question is,
4 why doesn't that mean you get a lot more natural NUGs?

5 A. Well, you do. The industrial natural
6 NUGs increased 50 per cent in less than five years in
7 this forecast.

8 Q. But you are expecting that at the end
9 of the period with electricity prices much higher and
10 having had gas price stability for 25 years that we
11 will have less than we do now. Isn't that what you are
12 projecting?

13 A. We are expecting a return to roughly
14 where we are today, yes. That is what the projection
15 from this model gives.

16 Now, I think we are entering into an area
17 which is extremely difficult to forecast, but I -- one
18 can go on one's opinion or one can look for empirical
19 evidence. And what I chose to do was try to model
20 historically the use of the generation that existed in
21 the province over a period of about 20 years, and it
22 showed that historically when gas prices rose people
23 throttle back. And that is what the equation picks up,
24 and I have no reason at this point to expect that may
25 not happen again.

1 MR. SHEPHERD: Mr. Burke, I will come
2 back to the model itself on Monday morning.

3 Mr. Chairman, that may be a good time to
4 break. I should tell you that for those parties who
5 are on the schedule I do not expecting to into
6 Wednesday at this point.

7 THE CHAIRMAN: That is a bit of a retreat
8 from this morning. This morning you said you were for
9 sure going to stop Tuesday. So I don't know whether
10 there is a distinction between the two...

11 MR. SHEPHERD: I had forgot that I had
12 said that. Anyway, same as this morning.

13 MR. B. CAMPBELL: Mr. Chairman, just to
14 start cleaning up undertakings as quickly as I can I
15 have made inquiries with respect to the obtaining of
16 Orders in Council for under five megawatt projects, and
17 it is correct to say that Orders in Council are
18 obtained for all projects above and below five
19 megawatts.

20 THE CHAIRMAN: So that satisfies
21 Undertaking No. 2; is that correct?

22 MR. B. CAMPBELL: No, No. 1. 940.1.

23 THE CHAIRMAN: 940.1.

24 MR. SHEPHERD: That's fine.

25 THE CHAIRMAN: We will adjourn now until

1 Monday. Monday morning at 9:00 o'clock.

2 THE REGISTRAR: Please come to order.

3 This hearing is adjourned until Monday morning, January
4 11th.

5 ---Whereupon the hearing was adjourned at 3:03 p.m. to
6 be reconvened on Monday, January 11th, 1993, at 9:00
a.m.



(Unpublished)

